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The Effects of Individualized Movement Programs Upon Emotionally Disturbed Children.

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THE EFFECTS OF INDIVIDUALIZED MOVEMENT PROGRAMS UPON EMOTIONALLY DISTURBED CHILDREN

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ABSTRACT

This research was undertaken to determine the effects of individualized movement programs upon emotionally disturbed children.

The specific purposes of this study were:

1. To determine whether emotionally disturbed children between the ages of seven and fifteen who participated in individualized movement programs would evidence:

   A. Improvement in motor development, as measured by the Lincoln-Oseretsky Motor Development Scale.

   B. Improvement in certain gross motor skills.

   C. Improvement in overt psycho-social behavior.

2. To determine whether individualized movement programs for emotionally disturbed children between the ages of seven and fifteen would be feasible in a clinical setting.

The method of research selected for the study was the case study technique. Twelve subjects between the ages of seven and fifteen years of age who were enrolled in the 1968 summer session of the Day Hospital for Children at the Baton Rouge Mental Health Center, Baton Rouge, Louisiana, were studied.

Individualized movement programs were developed for

each subject and subjects were taught alone or in small groups.

Case studies were written to describe each subject's experiences in the movement programs. Sources of data were: (1) daily observations; (2) pre and post evaluations by social workers, psychiatrists and classroom teachers; (3) questionnaires to parents; (4) interviews with subjects; and (5) pre and post tests of psycho-social behavior and motor development of the children.

The investigator found that all subjects were able to improve, to differing degrees, in certain gross motor skills and that individualized movement programs for emotionally disturbed children were feasible in a clinical setting. A few of the conclusions that were drawn from this study were:

1. Planned activities seem to bring about a release of energy while aimless activity appears to facilitate hyperactivity.

2. Achievement in motor skills, in some cases, appears to bring about a degree of self-confidence and facilitation of group adjustment during physical activities.

3. Individualized programs seem necessary before group programs in physical activity for emotionally disturbed children can be effective.

CHAPTER I

INTRODUCTION

> Social maladjustment resulting in abnormal behavior constitutes one of the greatest social problems of our day. It is not always easy to determine the dividing line between normal and abnormal behavior, although the difference at the extremes is readily observed.[1]

Although all children in the process of growing up encounter many emotionally challenging situations, the variety, frequency, and intensity of these situations will vary from child to child. "Emotional disturbance is characterized by a greater or lesser frequency and/or intensity of emotional response than can normally be expected from the situation."[2] Roucek pointed out that although some degree of emotional disturbance, at least on occasion, is common to the behavior of everyone, frequency and intensity of emotional response is a meaningful behavioral clue.

Emotional disturbance, in this culture, is hard to recognize because people from the early months of life are

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[1]Hollis Fait, Special Education: Adaptive, Corrective, Developmental (Philadelphia: W. B. Saunders, 1966), p. 166.

[2]Joseph Roucek (ed.), The Unusual Child (New York: Philosophical Library, 1962), p. 54.

taught to suppress their feelings.[3] The detection of emotional illness in children is even more difficult than in adults. Berowitz and Rothman stated that peculiarities in children are more easily overlooked and unacceptable behavior is often tolerated because children are expected to "grow out" of behavior patterns.[4]

Emotional disturbance is a term that has been used to characterize many conditions. Although social maladjustment and emotional disturbance in children are not necessarily synonymous, there is an overlap between them. Kirk defined social maladjustment as the behavior of children which is not within the range of the "culturally permissible," at home, in school, or in the community, while emotional disturbance is characterized by behavior reflecting inner tensions, anxiety, neuroticism, or psychosis.[5] Included in these two general groups of the socially maladjusted and the emotionally disturbed are those children who are unable to express their feelings and needs without creating serious difficulties for themselves or others.[6]

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[3]Louis Barclay Murphy, "Problems in Recognizing Emotional Disturbance in Children," Child Welfare, XLII (December, 1963), 474.

[4]Pearl Berowitz and Esther Rothman, The Disturbed Child (New York: New York University Press, 1960), pp. 1-2.

[5]Samuel Kirk, Educating Exceptional Children (Boston: Houghton Mifflin Company, 1962), p. 331.

[6]James Margary and John Eichorn (eds.), The Exceptional Child (New York: Holt, Rinehart, and Winston, 1960), p. 341.

The child who is emotionally disturbed has tensions which create frustration, fears, and impulsive behavior. The behavior of the child, in turn, is a reflection of these inner tensions. The child who exhibits these behavior problems often gains attention from many sources. Kirk reported that parents call him a "bad boy." Teachers call him "incorrigible." Social workers say he is "socially maladjusted." Psychiatrists and psychologists may say he is "emotionally disturbed." And, if he comes in conflict with the law, the judge calls him delinquent.[7]

Overt behavior of emotionally disturbed children may vary from hostility and aggression to severe withdrawal; but regardless of differences, all emotionally disturbed children share some common elements. Emotionally disturbed children have more or less serious problems with other people and are unhappy and unable to apply themselves in a manner commensurate with their abilities and interests. "In general, one might say that an emotionally disturbed child is one who has a sizable 'failure pattern' in living instead of a 'success pattern.'"[8]

Authorities do not completely agree on the causes of serious emotional disturbance and illness in children. Some

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[7]Kirk, op. cit., p. 330.

[8]Norris Haring and Lakin Phillips, Educating Emotionally Disturbed Children (New York: McGraw-Hill Book Company, 1962), p. 1.

believe that emotional illness may result from a fundamental defect, present at birth, caused by hereditary influences rooted in past generations. Other authorities believe that all emotional disturbance results from detrimental emotional experiences in childhood. A theory advocating a combination of causes has also emerged which asserts that some children are born with an inherited constitutional predisposition, defect, or weakness which, given the necessary condition, will emerge as severe emotional illness.[9]

Regardless of the causes, anxiety is an underlying factor in emotional disturbance. "The most generally held view of the relationship between anxiety and the self is that anxiety arises where there is a threat to the integrity of the self system."[10] Emotions such as fear and anger contain commitments to action such as fight or attack. Because of the absence of a specific commitment to action, anxiety has a prominent place in maladjustment. Although anxiety is closely related to the emotion of fear, it is distinguishable mainly in terms of the nature of the evoking stimulus. Anxiety is caused by a future anticipated situation.[11]

Anxiety which is associated with detrimental experiences in childhood may come from many sources. Difficulty

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[9]Harry Milt, Serious Mental Illness in Children (Public Affairs Pamphlet No. 352, 1963), pp. 12-15.

[10]Roucek, op. cit., p. 55.

[11]Ibid.

in perception, motor coordination and learning may, from birth, cause a child or his mother, or both extreme anxiety, especially in a normality-obsessed culture. Bender pointed out that difficulties in coordination make it hard for the child to meet his own needs or to meet the expectations of others. Marked contrasts or discrepancies between a child's verbal development as compared with his motor performance level produce difficulties. These various discrepancies can make the child insecure in that it is hard for him to size up or judge his own capacities and difficult for him to develop a clear, firm picture of himself. A child may either underestimate his motor development or even grossly underestimate himself because of bewilderment. A child who is advanced in one area, whether it be verbal or motor performance, may be bewildered by the difference between what he does with superb ease and what requires an average amount of effort or practice.[12]

Another source of anxiety results from cultural demands in conformity to the "sex role." This is especially a problem for males. Haring found that behavior problems with boys occur three to five times as frequently as with girls.[13] Kyllonen reported three to four times as many boys as girls are referred for treatment because of psychiatric

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[12]Murphy, op. cit., pp. 480-81.

[13]Haring, op. cit., p. 157.

problems.[14]

A boy who senses that he is not meeting the cultural expectations of masculinity will fight back in whatever way he sees fit. Hyperactivity, disturbing and disruptive behavior are attempts to reassure himself that he is not weak, thus denying failure and creating the illusion of success.[15]

In most cases, a boy who does not look masculine has trouble developing a clear image of himself or accepting himself as a person. Such a child may feel very inadequate if he does not fit the conventional concept of a "real boy."[16]

A psychiatrist has stated:

> People generally recognize deviation from expected behavior more readily in boys. The effeminate child is often an object of contempt and avoidance. Maleness tends to be equated with the capacity to be outwardly and vigorously assertive and competitive. It is safe to say that the boy who is noncompetitive, nonassertive, and nonvigorous is having a problem in his basic identification.
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> Such youngsters are clearly having trouble and are not infrequently referred for psychiatric treatment. What might work equally well, however, would be to provide a noncoercive, protective opportunity for these children to acquire the basic physical skills away from the critical eye and scorn of their classmates.[17]

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[14]Ronald Kyllonen, "Behavior: Disturbed or Disturbing," National Education Association Journal, LIII (September, 1964), 52.

[15]Ibid. [16]Murphy, loc. cit.

[17]Kyllonen, loc. cit.

Two other references were found that emphasized the relationship between peer or cultural expectations of the male and emotional stability. In one study, high school boys who later became schizophrenic were found to have less interest in girls, group activities, and athletics.[18] In the second study,[19] it was reported that the largest increase in the suicide rate, up 50 per cent during the last decade, occurs in white teen-age males. Many of these suicides are boys who are generally quiet and well respected but unable to live up to some heroic ideal that has been set by society or by their fathers.

In addition to anxiety caused by pressures for conformity with cultural "sex roles," anxiety may be caused by inability of students to perform academically. Academic achievement may have both cause and effect relationship to emotional stability. Many children with definite intellectual limitations become anxious, and emotional disturbances are added to their disability. Within the last twenty-five years it has been learned that certain developmental difficulties that were once thought to be retardation, or defect, are actually due, in part or entirely, to profoundly disturbed

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[18]Eli Bower, John Daily, and Thomas Shellhamer, "School Characteristics of Male Adolescents Who Later Became Schizophrenic," American Journal of Orthopsychiatry, XXX (October, 1960), 278.

[19]Joseph Bell, "Lifeline for Would-Be Suicides," Today's Health, XLV (June, 1967), 10.

feelings in children.[20] Some signs of childhood schizophrenia had, until about fifteen years ago, been diagnosed either as mental retardation or brain damage.[21] Problems still exist in determining whether inability of a child to function in what is considered a normal range is the result of emotional disturbance or mental retardation. There are some indications that many so-called retarded children may not be retarded at all.[22]

Some disturbed children feel anxious and threatened because their perception of their worlds is so severely distorted that they tend to misinterpret the actions and motives of others. These children may be plagued by unfounded fears, mistaken evaluations of their own capacities, and the inability to predict the results of their own actions.[23] "Children are not born with a sense of reality already developed, nor with a knowledge of the real world about them; they have to develop it."[24] The child does not have, from the beginning, a perception of himself; it is developed.

The anxieties present in emotionally disturbed

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[20]Murphy, op. cit., p. 473.

[21]Milt, op. cit., p. 8.

[22]Arthur Henley, "When Youngsters Need Special Schools," Today's Health, XLVI (September, 1968), 42.

[23]Herbert Grossman, Teaching Emotionally Disturbed Children (New York: Rinehart and Winston, 1965), p. 115.

[24]Milt, op. cit., p. 3.

children often result in specific manifestations which include: (1) apparent retardation; (2) speech difficulties; (3) poor perception of self and reality; (4) hyperactivity; (5) poor motor coordination; (6) lack of ego strength; and (7) poor impulse control.[25,26]

Emotional disturbance frequently first becomes apparent in the school situation when new demands are placed on the child which may bring about anxiety and reveal immaturity not apparent in the family setting.[27] A child who has a slight emotional disturbance, because of home factors, can become quite noticeably disturbed by factors in school which further his feelings of inadequacy and insecurity.

There are many situations in school which lead to frustration of children and which accentuate emotional problems.

> Most educators can point to factors in the curriculum or in classroom procedures which contribute to insecurity and feelings of inadequacy and so cause frustration and emotional disturbance.[28]

Some teachers begin to cause frustration in boys as early as the first grade by expecting them to use the pencil

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[25]Murphy, op. cit., p. 474.

[26]Louis Hay, "Perspectives for a Class for Disturbed Children," Exceptional Children, XXXIII (April, 1967), 577-78.

[27]Roucek, loc. cit.

[28]Kirk, op. cit., p. 352.

and to shape letters as well as girls when their hand muscles are less developed than girls'. Boys mature more slowly than girls and at the age of six are at least a year behind girls in their growth.[29]

> Little boys start more fights, make more noise, take more risks, think more independently, are harder to educate than girls, and are more fragile. They are more likely to stutter, to have reading problems, and to suffer emotional quirks of every kind. They lag behind girls in physical development and even at the start of school, their hand control is less mature.[30]

In addition to problems brought about by school situations, there has been a growing realization that many students who are physically handicapped, mentally retarded, brain damaged, culturally deprived, or delinquent also have serious emotional problems which impede their education.[31]

When any child becomes so severely disturbed that he is unable to function in a regular classroom situation, provisions must be made for the child. The school has a responsibility to provide for the education of emotionally disturbed children just as it does for the mentally and physically handicapped.

Several authors have made suggestions concerning the education of emotionally disturbed children.

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[29]Jack Harrison Pollock, "Are Teachers Fair to Boys?" Today's Health, XLVI (April, 1968), 23.

[30]Ibid.

[31]Grossman, op. cit., p. 1.

Long and others stressed that the curriculum for emotionally disturbed children must be flexible in level of difficulty and content. "Each child is considered to be in a school unto himself," with the work of that school dictated by the abilities and limitations of that pupil.[32] A program beginning at the immediate level of the student is indicated.

One of the characteristics of most classes for emotionally disturbed children is, by necessity, the unsystematic way content comes to be presented. The teacher of emotionally disturbed children must be far more consciously involved in motivational problems.[33] Individual needs and interests of children should be taken into consideration to the extent of straying from the usual content to appeal to specific interests; for, with interest as a motivating factor, the chances for success should be enhanced.[34]

> A successful educational experience is theraputic in itself. The emotionally disturbed student who has experienced educational success, perhaps for the first time, probably has considerably more self-esteem because of the experience. He is also likely to have acquired a more realistic appraisal of his own abilities.[35]

Much of the impulsive behavior in emotionally

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[32]Nicholas Long, William Morse, and Ruth Newman (eds.), Conflict in the Classroom (Belmont, California: Wadsworth Publishing Company, 1965), p. 385.

[33]Ibid., pp. 384, 387.

[34]Kirk, op. cit., p. 356.

[35]Grossman, op. cit., p. 148.

disturbed children is the result of their belief that if they do not receive immediate attention or gratification, they will not receive it at all. By keeping the child well satisfied, the need to behave in an uncontrolled manner is assuaged. This can best be done in small classes in which each child receives a proportionally larger share of the teacher's attention and receives it more quickly.[36]

Because children judge each other primarily upon the basis of what they can do, it is very important that the emotionally handicapped child should not be a total failure in group play. Children can be cruel in their criticism of those who are notably poor in physical skills. The poorest performers are usually not well received as team members. A child who can not engage in gross physical output is not generally accorded a high place in the status hierarchy.[37] Emotional problems can arise as the result of the children's comparison of their mobility with the mobility of more competent children.[38] When a child has experienced too much failure and discouragement he begins to doubt his personal worth.[39]

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[36]Ibid., p. 132.

[37]Bryant Cratty, Psychology and Physical Activity (Englewood Cliffs: Prentice Hall, 1968), p. 52.

[38]Ibid., p. 200.

[39]Gladys Gardner Jenkins, "These Are Your Children," Journal of Health, Physical Education and Recreation, XXXVII (November-December, 1966), 37.

Because a main objective of special schools for emotionally disturbed children is to return the child to the regular school as soon as the child is ready, aid in many areas is needed so that the child will be prepared to function effectively in the setting of a typical school program. Very important parts of the regular school program are the free time spent in recreation with peers as well as instruction in physical education classes. Too often these important areas of the school program are ignored.

STATEMENT OF THE PROBLEM

This research was undertaken to determine the effects of individualized movement programs upon emotionally disturbed children.

PURPOSES OF THE STUDY

The purposes of this study were:

1. To determine whether emotionally disturbed children between the ages of seven and fifteen who participated in individualized movement programs would evidence:

   A. Improvement in motor development, as measured by the Lincoln-Oseretsky Motor Development Scale.[40]

   B. Improvement in certain gross motor skills.

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[40]William Sloan, Manual for Lincoln-Oseretsky Motor Development Scale (Chicago: C. H. Stoelting Company, 1954).

C. Improvement in overt psycho-social behavior.

2. To determine whether individualized movement programs for emotionally disturbed children between the ages of seven and fifteen would be feasible in a clinical setting.

NEED FOR THE STUDY

In recent years, physical educators have shown an increasing interest in the possibilities of programs for atypical students. Many schools now offer courses entitled adapted or corrective physical education. Books concerning physical education for exceptional students are available and usually include general information with regard to the emotionally disturbed.

The handicapped child needs teaching in physical, developmental, and recreation activities to a far greater degree than the normal child. Without direct, specific training to develop areas of strength and remedy areas of weakness, he falls farther and farther behind in the acquisition of physical skills.[41] A child's acceptance as an individual depends to a large degree on his being able to compete effectively with other children. Achievement in physical skills can bring a degree of success, group approval and acceptance.[42]

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[41]Donald Hilsendager, "The Buttonwood Farms Project," Journal of Health, Physical Education and Recreation, XXXIX (March, 1968), 48.

[42]Ibid.

Only one research study and a few articles concerning emotionally disturbed children were found by the investigator in the physical education literature. From a wide review of literature encompassing several disciplines, it appeared that physical education for emotionally disturbed children may have greater implications than for any other group of atypical students. Physical education for many atypical students may be helpful in ameliorating their conditions, while lack of physical skills may actually be a cause of emotional disturbance in children.

Since little information concerning results of physical education programs for the emotionally disturbed child is available, there appears to be a great need for research in this area.

DEFINITION OF TERMS

Some terms pertaining to a better understanding of this study were defined as follows:

Adjustment reaction.--This term was defined as "certain transient situational personality disorders."[43]

Childhood schizophrenia.--Childhood schizophrenia was defined as an inclusive term referring to psychosis in children. There is a growing belief that childhood

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[43]Leland Hinsie and Robert Jean Campbell, Psychiatric Dictionary (New York: Oxford University Press, 1960), p. 15.

schizophrenia is not really a single disease, but actually a number of different kinds of mental illnesses.[44]

Depressive reaction.--A depressive reaction was defined as occurring when a depressive state is directly occasioned by some external situation and is relieved when the situation is removed.[45] Depression is a morbid sadness, dejection or melancholy and differs from grief which is realistic and proportionate to what has been lost.[46]

Emotional disturbance.--Emotional disturbance was defined as a state characterized by inner tensions, anxiety, neuroticism, or psychotic behavior.[47]

Gross motor skills.--In this study the term gross motor skills referred to any of a variety of large muscle activities resulting in gross movements such as rope skipping, throwing, catching, skating, etc.

Individualized movement programs.--Individualized movement programs in this study referred to programs consisting of basic skills for those subjects in need of a remedial program, and games, skills, and special interest activities for the subjects of essentially average ability.

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[44]Milt, op. cit., p. 4.

[45]Hinsie and Campbell, op. cit., p. 201.

[46]Committee on Public Information, American Psychiatric Association, A Psychiatric Glossary (New York: American Psychiatric Association, 1964), p. 24.

[47]Kirk, op. cit., p. 331.

Motor development.--In this study, motor development referred to movement capacity as measured by the Lincoln-Otseretsky Motor Development Scale.

Overt behavior.--Overt behavior was defined as behavior which could be discerned through observation.

Social maladjustment.--Social maladjustment refers to behavior of children which is not within the range of the "culturally permissible," either at home, in school, or in the community.[48]

LIMITATIONS

Certain limitations of this study were recognized by the investigator.

1. The case study technique was used in this research and was limited in that few subjects were used and in many instances subjective means of evaluation were necessary.

2. Some of the emotionally disturbed children in this study were unable to respond consistently and in a positive way to the individualized movement programs.

3. Some of the emotionally disturbed children in this study were unable to respond consistently and in a positive way to the testing procedures. Specifically, some subjects appeared to lack adequate communication skills, self discipline, motivation, or orientation to reality. As a result of these factors, some subjects refused to be tested or

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[48] Ibid.

failed to perform to the probable limit of their abilities.

4. Varying amounts of time were spent with the subjects in the movement programs. The number of movement sessions attended by each subject was dependent on the number of days each subject attended the Day Hospital for Children. Some of the subjects attended the Day Hospital for Children five days each week, some attended three days weekly while one subject attended the Day Hospital only two days each week. The length of time spent in each movement session was dependent on individual attention spans of the subjects.

5. Space and facilities available at the Mental Health Center were limited and to some extent restricted the content of the movement programs. Further restrictions on the content of the programs were imposed by the necessity of individual or small group activities.

CHAPTER II

REVIEW OF RELATED LITERATURE

Little information was found which dealt specifically with physical education programs for emotionally disturbed children. The literature reviewed concerned: (1) education of emotionally disturbed children; (2) dance therapy; (3) research in physical education with implications for emotionally disturbed children; and (4) physical education for emotionally disturbed children.

EDUCATION OF EMOTIONALLY DISTURBED CHILDREN

An article by Kanner[1] dealt with the history of emotional disturbance in children and revealed that there is almost a total absence of any mention of emotional disorders of children before the eighteenth century. He stated that this does not warrant the assumption that the occurrence of emotional disturbance in children is a relatively recent phenomenon. It was not until the decades immediately before and after the French and American revolutions that there was

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[1]Leo Kanner, "Emotionally Disturbed Children: A Historical Review," Child Development, XXXIII (March, 1962), 97-102.

much emphasis upon individual rights and humanitarian reforms. At about that time spokesmen arose for more humane treatment of the insane, blind, deaf, and mentally defective. For the first time, handicapped children were seen and heard.

Kanner further reported that in the last two decades of the nineteenth century, attempts were made to collect and organize existing material concerning psychotic children. The establishment of juvenile courts was inaugurated in 1899 in Denver and Chicago. Educators joined in by building into the school systems special instructional facilities for pupils with visual, auditory, neuroorthopedic, and intellectual handicaps. It was not until the 1930's that consistent attempts were made to study children with severe emotional disturbances from the point of view of diagnosis, etiology, therapy, and prognosis. Not until the last thirty years has the term "emotional disturbance" been noted in the literature.

Only relatively recently have studies dealing with education of emotionally disturbed children been reported. One such study was developed to investigate the value and effect of a nonstimulating classroom environment, specially prepared teaching materials, and highly structured teaching methods upon the learning problems and school adjustment of hyperactive, emotionally disturbed children with and without

clinically diagnosed brain injury.[2] The study was conducted within the public school system of Montgomery County, Maryland, and was housed in four classrooms in three elementary schools. Forty children were selected whose emotional difficulties were characterized by hyperactive, aggressive behavior and who were educationally retarded. There were two experimental and two control groups. Five children with a diagnostic classification of brain-injured and five children diagnostically classified as emotionally disturbed were placed in each of the four classes.

The teaching methods and instructional material used in the experimental classes were designed for: (1) reduction of environment stimuli; (2) reduction in available space; (3) a structured school program and planned routine; and (4) an increase in the amount of stimulus value contained within the teaching materials.

The teaching methods and materials used in the two control groups included any of the traditional instructional methods and any aspect of the experimental programming which appealed to the interest of the teacher.

The test battery consisted of thirteen tests designed to investigate: (1) intelligence; (2) social development; (3) perceptual ability; (4) readiness; and (5) academic achievement. Results indicated that the children in the

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[2]William Cruickshank (ed.), A Teaching Method for Brain-Injured and Hyperactive Children (Syracuse: Syracuse University Press, 1961).

experimental groups who had a structured school program with reduction in environment stimuli made significant gains in academic achievement, visual perception, and social behavior, as measured by pre- and post-tests.

One book, sometimes used as a text in classes preparing special education teachers, included an extensive review of literature with implications for education of the emotionally disturbed child and a description of a study conducted by the authors.[3]

The experimental study, with children who were moderately to severely emotionally disturbed, was conducted in nine elementary schools in the Arlington County Public Schools in Virginia and was designed to determine the effects of structured and nonstructured class settings on learning behavior. Forty-five subjects were divided into three groups of fifteen subjects. Group I was in a highly structured special class environment. Subjects in Group II were placed in fifteen regular classrooms. The curriculum and methods used with the subjects were modified yet similar to those with undisturbed children. Group III had a comparatively nonstructured, permissive special class setting. Before-and-after-tests of academic achievement and behavior were administered to the three groups at the end of the first year of the program. The mean gain score in academic

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[3]Norris Haring and Lakin Phillips, Educating Emotionally Disturbed Children (New York: McGraw-Hill Book Company, 1962).

achievement for Group I, the highly structured group, was significantly higher at the .01 level of confidence than were scores for either groups II or III indicating that a highly structured classroom environment may be conducive to academic improvement.

Group I, the highly structured group, had certain restrictions placed on physical education and activity programs:

1. Active physical games in the mornings were not permitted because they interrupted academic work sessions.

2. The more recreational activities were withheld from children who were reluctant in finishing their academic work.

3. Physical education and free play periods came in the afternoon provided a child's work was up to par.

Although the authors stressed throughout their book restrictions on play and activity for emotionally disturbed children, the authors did state that there may be a deficiency in fine and gross motor coordination, eye-hand coordination, perception, and laterality among such children. Haring and Phillips stated that it was of vital importance to determine each child's level of development in each of these areas so that the information could be used to formulate a program for each child. Activities to assist the teacher in determining the child's level of development were listed by the authors and included such activities as hopping, catching a ball, and others.

Representatives from the Lafayette Clinic, Children's Services and the Wyandotte Board of Education in Michigan undertook an experimental study of public school special classes for emotionally disturbed children.[4] The study attempted to answer the question of whether placement of children with emotional maladjustment in a special class results in improvement in academic, social, and emotional adjustment.

The special class project began in May, 1960. Following a rather complete and elaborate screening process, fifty-six subjects were selected. Matched on the basis of sex and clinical type, twenty-eight experimental class subjects and a like number of control subjects who remained in their regular classrooms became the subjects for the investigation. The first children were actually admitted to the experimental class in January, 1961, and during the course of the next two and a half years the total sample was entered into the project. At the specific point of the experimental child's exit and one semester afterwards, certain examinations were repeated for the purpose of assessing change.

Few definite conclusions were drawn. There were indications that the children in the special class tended to maintain and continue improvement in classroom behavior,

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[4]Eli Rubin, Clyde Simpson, and Marcus Betwee, Emotionally Handicapped Children and the Elementary School (Detroit: Wayne State University Press, 1966).

although the difference between the children in the special class and those children in the regular classroom was not statistically significant. Both groups continued to show academic retardation. There was no confirmation from the psychiatric or psychological data that improvements in emotional adjustment were significant for either group of subjects.

One study probed the extent to which emotional or mental illness was present in a rural Northern Minnesota school district which served about 1500 children.[5] From the results of the initial screening and three subsequent investigations certain generalizations concerning emotional disturbance and mental health in schools were made:

1. About 5 to 10 per cent of the children enrolled in elementary schools were identified as having adjustment difficulties of sufficient severity to warrant professional attention.

2. A significant number of children identified as emotionally handicapped were deemed not likely to resolve their adjustment problems without help. For this group, "emotional handicap" was viewed as a "disease" and not a "phase."

3. The emotionally handicapped youngster tended to get progressively further behind his peers in academic

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[5]R. G. Stennett, "Emotional Handicap in the Elementary Years: Phase or Disease?" American Journal of Orthopsychiatry, XXXVI (April, 1966), 444-49.

achievement as he moved over the elementary years.

Another study was undertaken to test experimentally the hypothesis that emotionally disturbed children rarely are able to function at their optimal level on intelligence tests.[6] These emotionally disturbed children were located by examining the records of the Cleveland Guidance Center for the period 1957-1963. Siblings were chosen for controls, as they had grown up in the same home and under basically similar conditions, and were equated on the relevant variables of race, socioeconomic status, and cultural and ethnic background.

On the basis of the research evidence gathered in the study it appeared that the emotionally disturbed children did not differ from their "normal" siblings, who were statistically "average." Interpretation of this finding should take into consideration the fact that only nonpsychotic, nonorganic, nonretarded children from lower and lower-middle-class families were used in the emotionally disturbed group. However, the results did suggest that it would be worthwhile to reconsider the stereotype that all emotionally disturbed children would test higher if they were not disturbed.

One study was designed to improve structural definition of the children's behavior problems and to examine

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[6]Martin Wolf, "Effects of Emotional Disturbance in Childhood Intelligence," American Journal of Orthopsychiatry, XXXV (October, 1965), 906-908.

changes in these problems over the years of middle childhood.[7] Teacher ratings of fifty-eight clinically frequent problems were obtained for 831 kindergarten and elementary school children, and four separate factor analyses were conducted, one for the kindergarten subjects and one each for children in grades one and two, three and four, and five and six. Two factors emerged with remarkable invariance in all four analyses. The first implied a tendency to express impulses against society and was labeled "conduct problem." The second contained a variety of elements suggesting low self-esteem, social withdrawal, and dysphoric mood. It was called "personality problem."

The results of a study conducted in the outpatient clinic school at the Regional Mental Health Center in New Orleans, Louisiana, were reported in 1964.[8] Only boys between the ages of six and twelve were admitted, with further criteria for acceptance including: (1) repeated school failure or lack of academic success; (2) concern and interest of parents; (3) absence of brain damage; (4) average intelligence quotient; and (5) absence of psychosis in subjects or their parents.

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[7]Donald Peterson, "Behavior Problems of Middle Childhood," Journal of Consulting Psychology, XXV (June, 1961), 205-209.

[8]Arthur Burdon, James Neely, and Annie Louise Thorpe, "Emotionally Disturbed Boys Failing in School," Southern Medical Journal, LVII (July, 1964), 829-35.

A joint effort was made by using special educational approaches, group psychotherapy, and intensive psychiatric casework to effect successful treatment in the young boys. Through an intensive therapeutic and educational program involving the entire family, the emotional components relevant in the block to learning in the child were recognized and treated. At the same time, remedial educational efforts were made.

Changes in students attending the clinic school for two years were evaluated by clinical psychiatric interviews, school surveys and grade performance, and by psychological testing. A one-year follow-up indicated that twenty-eight of thirty-one children passed their grade successfully and continued to adapt well.

Projects have been undertaken by school systems and institutions of higher education in an attempt to meet the challenge of education for children who are emotionally disturbed. The New York school system has experimented with several projects in a school setting. In one such program, poorly adjusted children were selected by the teachers of the kindergarten, first, and second grades.[9] The children selected included those who were withdrawn, submissive, of low vitality, hyperactive, or aggressive; those with notable

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[9]Louis Hay, "A New School Channel for Helping the Troubled child," American Journal of Orthopsychiatry, XXIII (October, 1953), 676-83.

physical disabilities such as asthma and epilepsy; and the academically retarded.

The curriculum for the child guidance classes was determined by the needs of the child and the special abilities of the teacher. The teachers avoided pressing an individual child in an area before there was acceptance on his part.

Nonacademic units were stressed to help the child who was not succeeding in formal schoolwork to develop self-confidence. With each new group, much of the school day was devoted to music, painting, ceramics, carpentry, blockbuilding, housekeeping, playing store, and similar activities.

Project Re-Ed, a project for the reeducation of emotionally disturbed children was begun as an eight-year demonstration, training and research venture jointly undertaken by Peabody College and the states of Tennessee and North Carolina.[10] With the help of a generous grant from the National Institute of Mental Health, Project Re-Ed is exploring the feasibility of a more responsible role for educators in developing a program of residential treatment for emotionally disturbed children.

Project Re-Ed began with the premise that traditional patterns of treatment for emotionally disturbed children will continue to be inadequate and that new patterns and new

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[10]W. W. Lewis, "Project Re-Education: A New Program for the Emotionally Disturbed Child," The High School Journal, XXI (March, 1966). 279-86.

professional roles must be developed. The pattern being used experimentally in the Re-Ed schools is that of two carefully selected and specially trained teachers living and working with a group of eight children in a round-the-clock program of intensive teaching and learning.

The nonacademic part of the school day also emphasizes the learning of skills which have social value for elementary school age children, but which, for some reason, have not been developed. The ability to kick a football, roller skate, swim, cook, or ride a bicycle may have social utility as great as arithmetic skills in a child's reintegration into his normal school and home environment.

As education for emotionally disturbed children has been studied more closely, increasing attention has been focused on the beneficial aspects of learning skills which have social utility. Kyllonen, a psychiatrist, reporting in the National Education Association Journal emphasized the need for teachers to understand the differences between patterns of behavior in boys and girls.[11] Boys more frequently exhibit disturbing behavior, according to the author. Kyllonen pointed out the relationship between poor coordination and emotional disturbance in males. The psychiatrist made a recommendation that males who are poorly coordinated and evidence emotional problems could probably benefit from

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[11]Ronald Kyllonen, "Behavior: Disturbed or Disturbing," National Education Association Journal, LIII (September, 1964), 50-52.

individualized guidance in basic physical skills.

DANCE THERAPY

"Dance therapy can best be defined as the planned use of any aspect of dance to aid in the physical and psychic integration of the individual."[12] Much research has been reported in dance therapy by physical educators. In the research, atypical groups such as the blind, deaf, spastics, mentally retarded, and institutionalized mental patients have been used as subjects. Information with specific implications for movement and activity programs for emotionally disturbed children can be found in the literature dealing with dance therapy.

In 1941 an article in the American Journal of Orthopsychiatry reported the results of dance therapy with children from the Observation Ward of the Psychiatric Division of Bellevue Hospital.[13] The children, who were twelve years of age and younger, represented all types of behavior disorders and psychiatric problems. The authors concluded that many of the subjects were able to: (1) express primitive and deeply buried fantasies; (2) reveal social problems and come in contact with new social experiences; and (3) express

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[12]Clair Schnasis, "Dance Therapy as a Profession," Journal of Health Physical Education and Recreation, XXXVIII (January, 1967), 63-64.

[13]Lauretta Bender and Franzisk Boas, "Creative Dance in Therapy," American Journal of Orthopsychiatry, XI (April, 1941), 234-44.

original esthetic experiences.

One experiment in dance therapy primarily was concerned with the study of "normal" people.[14] The aim of the program was to achieve catharsis through self-expression in coordination. The hypothesis was that with improvement of physical coordination, one can hope to influence the psychological state of an individual. The twelve groups used in the study ranged in age from children's groups of three to six years, to adult groups of 25 to 40 years of age. Content of the programs was taken from all fields of physical exercise and body mechanics. It was demonstrated by many case histories that the group, as such, had a healing quality if led through physical exercises and dance geared to the creative self-expression of each individual.

Data collected in a pioneer study by Rosen were later published in a book entitled Dance in Psychotherapy.[15] Case studies of patients in two psychiatric hospitals were reported as well as much background information to guide programs of dance therapy with mental patients.

Hill undertook a study to determine the effectiveness of dance as a means of therapy for children was conducted at

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[14]Gertrude Bunzel, "Psychokinetics and Dance Therapy," Journal of Health Physical Education and Recreation, XIV (March, 1948), 227-29.

[15]Elizabeth Rosen, Dance in Psychotherapy (New York: Teachers College, Columbia University, 1937).

the Juliette Fowler Home for Children in Dallas, Texas.[16] The investigation entailed the development and presentation of a program of dance therapy designed especially to enrich the environment background and to improve the social behavior of approximately thirteen pre-school boys and girls who were residents of the Juliette Fowler Home.

The dance experiences were presented in twenty sessions, five days a week, for forty-five minutes each day. Axial movements, locomotor movements, and creative dance were included in the program content.

Hill concluded that the dance therapy program was not of sufficient length to cause notable changes in social behavior.

Several attributes of the dance therapist, pointed out by Godwin, are integrity and objectivity; a sincere interest in people; and relative freedom from personal conflicts, anxieties, biases, emotional blind spots, rigidities of manner and settled convictions as to how people should properly behave.[17]

A child psychologist who observed a dance therapy session for psychotic children in the Langley-Porter

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[16]Madeline Hill, "The Development of a Program of Dance Therapy for Pre-School Boys and Girls at the Juliette Fowler Home for Children in Dallas, Texas" (unpublished Master's thesis, Texas Women's University, Denton, 1966).

[17]Betty Alice Godwin, "A Study of the Use of Dance as a Therapeutic Aid with Special References to the Mentally Ill" (unpublished Master's thesis, University of North Carolina, Chapel Hill, 1954).

Neuropsychiatric Institute in San Francisco, commented that it is the job of the dance therapist to provide an environment in which things will happen. The ability of the children to respond depends on many factors, most of which are out of the hands of the therapist. "What is important is that the opportunity for them to learn through dance activity is left open to them."[18]

Chance and Johnson expressed an idea central to this study.[19] Almost all emotionally disturbed children evidenced some form of retarded development in muscular coordination. In addition, these children have the usual related blockages in learning academic and social skills. These children live in a world of movement and feeling. Nonverbal communication is important for these children who are not a part of the intellectually verbal world. The emotionally disturbed child's contact with the environment is through the body. "By gaining greater control of his body, his basic machine for dealing with life, the child grows in his ability to experience and to learn."[20]

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[18]Joanna Gewertz, "Dance for Psychotic Children," Journal of Health Physical Education and Recreation, XXXV (January, 1964), 63-64.

[19]Marian Chance and Warren Johnson, "Our Lives Are Lived in Rhythm and Movement," Journal of Health Physical Education and Recreation, XXXII (November, 1961), 30-32, 56.

[20]Ibid., p. 31.

RESEARCH IN PHYSICAL EDUCATION WITH IMPLICATIONS FOR EMOTIONALLY DISTURBED CHILDREN

Some literature in physical education which had implications for emotionally disturbed children was located. Because emotionally disturbed children generally lack gross motor coordination, several studies in physical education were pertinent.

In 1949, a study was published in the Research Quarterly which examined twenty third-grade children exhibiting extreme levels of achievement on tests of motor proficiency.[21] Ten children exhibited a high level of motor achievement while ten showed a low level of motor proficiency. One of the specific purposes of the study was to determine similarities or differences in social characteristics of the children making up the two groups. It was found that with respect to social qualities and personality traits, as subjectively evaluated by the teacher, children in the superior group tended to be active, popular, calm, resourceful, attentive, and cooperative; whereas, children in the inferior group more frequently showed negative traits, and were more often indicated as being shy, retiring, and tense.

Two studies conducted at the University of Oregon confirmed the relationship between physical characteristics and

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[21]Lawrence Rarick and Robert McKee, "A Study of Twenty Third-Grade Children Exhibiting Extreme Levels of Achievement on Tests of Motor Proficiency," Research Quarterly, XX (May, 1949), 142-51.

social status. One study which sought to determine the relationship between criteria of personal and social adjustment and the maturity, structural, and strength characteristics of boys nine through fourteen years of age, was reported in 1961.[22] It appeared that boys with superior physical traits enjoy greater peer status and are more favorably judged as having desirable overall personality traits by administrators and teachers than are boys with inferior physical traits.

In another study from the University of Oregon, tests of physique type, maturity, body size, strength, muscular endurance, and motor ability and measures of personality, motivation, self-image, social status, interest, academic achievement, and intelligence were administered to ninety-five boys thirteen years of age.[23] The results of the case studies generally confirmed the importance of relative muscular strength, fitness, and motor ability for adequate social relationships. Boys who scored consistently low on the relative physical variables were at a definite disadvantage, whereas boys with superior relative strength and motor

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[22]H. Harrison Clarke and David Clarke, "Social Status and Mental Health of Boys as Related to Their Maturity, Structural and Strength Characteristics," Research Quarterly, XXXII (October, 1961), 326-34.

[23]Jan Broekhoff, "Relationships Between Physical Sociopsychological and Mental Characteristics of 13-year Old Boys," Washington: Abstracts of the Papers Presented to the Research Section at the 1967 Las Vegas Convention of the American Association of Health, Physical Education and Recreation, 1967.

ability were generally held in high esteem by their peers and teachers.

Another study to examine the relationship of physical fitness to selected measures of popularity among high school senior boys indicated a positive relationship between physical fitness and popularity among boys in the study. It was concluded that physical fitness was of some social value to the high school student.[24]

McCraw and Tolbert investigated the relationship between sociometric status and general athletic ability among 438 junior high school boys and the extent to which this relationship compares with that between sociometric status and mental maturity.[25] The relationship between sociometric status and athletic ability seemed to be moderately high in almost all of the groups studied.

Olsen conducted a study designed to examine the effectiveness of a supplementary physical education program in improving selected motor skills and behavior adjustment of primary school children who were poor in motor skills and deficient in behavior adjustment.[26] Motor skill tests

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[24]Donald Yarnall, "Relationship of Fitness to Selected Measures of Popularity," Research Quarterly, XXXVII (May, 1966), 286-88.

[25]L. W. McCraw and J. W. Tolbert, "Sociometric Status and Athletic Ability of Junior High School Boys," Research Quarterly, XXIII (March, 1953), 72-80.

[26]David Olsen, "Motor Skill and Behavior Adjustment: An Exploratory Study," Research Quarterly, XXXIX (May, 1968), 320-26.

utilized included: (1) agility run; (2) jump-and-reach; (3) pass-and-catch; and (4) kicking. At the end of six weeks, it was found that the level of motor performance attained by each of the experimental groups did not significantly differ from the level of motor performance exhibited by normal primary school children. Changes in behavior adjustment among the participants were not statistically significant.

Recently, physical educators have become more concerned with mental health. An appraisal instrument designed to be used by classroom teachers was developed to evaluate the emotional health of junior high school pupils. The instrument was administered to 3,114 pupils in grades seven, eight, and nine in five junior high schools representing low, average, and high socioeconomic levels in two school districts in Los Angeles County, California.[27] The instrument was divided into three parts based on the structural analysis of emotional health: (1) getting along with one's self; (2) getting along with others; and (3) getting along in one's environment. Analysis of the data indicated that the instrument was reliable and valid.

An investigation was conducted to compare the individual physiological and psychological characteristics of psychiatric patients that subsequently experienced short- or

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[27]Trudys Lawrence, "Appraisal of Emotional Health at the Secondary School Level," Research Quarterly, XXXVII (May, 1966), 252-66.

long-term hospitalizations.[28] A battery of tests was administered to 69 male psychiatric patients at Toledo State Hospital during the summer of 1966. All tests were administered within 48 hours after admission and prior to the administration of medication. One year later, ten patients were placed in the short-term group for purposes of comparison. The mean length of hospitalization for the short-term group was 60.60 days. Ten patients who were still hospitalized one year later comprised the long-term group.

The long-term group scored significantly lower than the short-term group for left grip strength and on the finger ergometer task at the time of admission. It was concluded that the psychiatric patient's length of hospitalization is governed to a certain degree by his muscular fitness at the time of admission. Of further importance was the observation that measures of muscular fitness were better prognostic tools than standard psychometric devices.

PHYSICAL EDUCATION FOR EMOTIONALLY DISTURBED CHILDREN

In 1964, the Indianapolis Project for Emotionally Handicapped Children was initiated in the schools with one exploratory pilot class. Later, other pilot studies

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[28]William Morgan, "Physical Fitness Correlates of Psychotic Hospitalization," A paper read before the 2nd International Congress of Sport Psychology, Washington, D. C. October 31, 1968.

involving various aspects of education with disturbed children were conducted.

One such study involved the value, approaches, and implications of physical activity with such children.[29] Initially only boys aged eight to eleven were involved in this program. It became apparent almost immediately that most of the children, while normal in physical development, lacked basic skill development in physical activity. Most of the children resisted competitive activities, but exhibited strong interest and need for basic physical activities such as running, jumping, throwing, skipping, hitting, and other such activities. Activities which required little or no instruction, in which the rules were simple, and in which flexibility allowed for imaginative or creative innovations by the children were most successful. Physical activity provided many situations in which the children could achieve immediate and gratifying success. Through the support of physical development and continued reinforcement of group spirit, the children individually and as a group began to form normal social relationships and individual feelings of pride and accomplishments.

A pamphlet published in 1968 to provide the classroom teacher of emotionally disturbed children with a tool that would be helpful in planning physical education periods was

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[29]Jack Fadely and Janice McAuley, "Physical Activity--Its Relevance to the Emotionally Handicapped Child," Physical Educator, XXIII (December, 1966), 181-82.

written by McAuley, in cooperation with the Department of Special Education, Indianapolis Public Schools.[30] According to the pamphlet, releasing frustration and having a more permissive atmosphere in which to interact were two of the values of physical education for emotionally disturbed children. Some suggestions for physical education programs made by McAuley included: (1) more than one adult present for physical education periods; (2) short explanations of activities; and (3) flexibility in following lesson plans.

A report of the physical activity program aspect of the Buttonwood Farms Project of Temple University which is supported by a grant from the National Institute of Mental Health described the physical education and recreation program for emotionally disturbed and mentally retarded children.[31] The ingredients of activity essential to the child with emotional problems were described as: (1) fitness; (2) agility; (3) vitality; (4) change of pace; (5) physical achievement; and (6) self-realization. A program was organized to improve the total physical fitness of the children. A fundamental movement program was designed to strengthen each child's least adequate area of physical

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[30]Janet McAuley, "Physical Education for Emotionally Disturbed Children in Public School Settings," Indianapolis: The Department of Special Education, Indianapolis Public Schools, 1968. (Mimeographed.)

[31]Donald Hilsendager, "Buttonwood Farms Project," Journal of Health Physical Education and Recreation, XXXIX (March, 1968), 46-48.

performance. Basic sports skills and recreational activities were also included in programs for the children. The deficit in physical skills exhibited by emotionally disturbed children and the need for adequate activity programs were discussed in the article.

Only one research study concerning physical activity for emotionally disturbed children was found.[32] The primary purpose of the study was to evaluate the effect of drug therapy on the physical performance of emotionally disturbed children. A subsidiary problem involved an assessment of physical fitness in the children.

Sixteen patients at the Mid-Missouri Mental Health Center were studied. They ranged in age from 124 to 178 months. Eight of the children, six males and two females, were receiving drugs. The nondrug group also consisted of six males and two females.

The dependent variables in the study were: (1) working capacity, measured by a bicycle ergometer; (2) sit-ups; (3) pull-ups; (4) squat thrusts; (5) the "human plank" test; (6) grip strength; (7) triceps skinfold; (8) large muscle reaction time; and (9) small muscle reaction time.

Of the sixteen children tested, 50 per cent and 75 per cent, respectively, failed to meet the minimum standards for

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[32]William Morgan, "Drug Therapy and Physical Performance in Emotionally Disturbed Children," A paper read before the 2nd International Congress of Sport Psychology, Washington, D. C., October 31, 1968.

sit-ups and pull-ups. As measured by the Mann-Whitney U test, the drug group was significantly faster on both large muscle reaction time and small muscle reaction time.

Of interest was the observation that all sixteen children were able to meet the minimum standards established for the squat thrusts. The author of the study stated that most authorities suggest that squat thrusts are measures of agility whereas pull-ups and sit-ups measure muscular strength and endurance. It was suggested that future research be directed toward the delineation of motor fitness and motor ability norms for the emotionally disturbed child.

It was concluded that the emotionally disturbed children tested in the study did not possess adequate levels of motor fitness. It was also concluded that drug therapy represents an experimental contaminant in physical performance research that involves a reaction time component.

CHAPTER III

PROCEDURE

OVERVIEW

This research was undertaken to determine the effects of individualized movement programs upon emotionally disturbed children.

The method of research selected for the study was the case study technique. Twelve subjects between the ages of seven and fifteen years of age who were enrolled in the 1968 summer session of the Day Hospital for Children at the Baton Rouge Mental Health Center, Baton Rouge, Louisiana, were studied.

Individualized movement programs were developed for each subject and subjects were taught alone or in small groups.

Case studies were written to describe each subject's experiences in the movement programs. Sources of data were: (1) daily observations; (2) pre- and post-evaluations by social workers, psychiatrists and classroom teachers; (3) questionnaires to parents; (4) interviews with subjects; and (5) pre and post tests of psycho-social behavior and motor development of the children.

METHOD OF RESEARCH

The method of research selected for this study was the case study technique. Relatively few studies in physical education have utilized this method which has long been employed in medicine, law, and psychology. A variety of techniques for gathering data, including both objective and subjective measurements, are valuable in collecting information concerning the past and present condition of subjects. The case study, by providing detailed information about individuals, may yield data for formulation of hypotheses concerning groups which are similar. ". . . With many replications, the case approach becomes a powerful device for providing important information about personal and social phenomena. . . ."[1]

The small number of subjects and methods of evaluation may limit the types of statistical procedures to be utilized in analyzing data. However, a search for patterns which occur, or pattern analysis, is well suited to the case study.[2]

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[1]Gladys Scott (ed.), Research Methods (Washington: American Association of Health Physical Education and Recreation, 1959), p. 268.

[2]Ibid., p. 267.

SELECTION OF SUBJECTS

The Day Hospital for Children

The Louisiana State Department of Hospitals, through the Mental Health Division, provides Community Mental Health Centers which serve as focal points in their communities to coordinate and provide comprehensive mental health services for emotionally disturbed children, mentally ill adults, mentally retarded children, and alcoholics.

The Baton Rouge Mental Health Center, which is one of fifteen Community Mental Health Centers in Louisiana, provides a school for emotionally disturbed children. The school, referred to as the Day Hospital for Children, is a function of the Children's Service and is under the direction of a social worker. The Baton Rouge Mental Health Center houses the Day Hospital for Children on a section of the second floor of the building. Although the Day Hospital is supported through state funds, the local school board provides the teacher.

The Day Hospital for Children follows the plan for Implementation of Act 487 of the Louisiana Legislature providing for exceptional children, as set forth by the Louisiana State Department of Education:

> All children must have been recommended for a class by the Special Education Center* before being admitted to a class. All children shall be

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*Louisiana State University Special Education Center, Baton Rouge, Louisiana.

> admitted and maintained on a trial basis. If, after a reasonable period, a child fails to show progress, or if physical or mental status deteriorates, he shall be re-evaluated to determine continuation in the program.[3]

Information usually needed by the Special Education Center before recommendations can be made include the following:

1. Social evaluation
2. Psychiatric evaluation
3. Psychological evaluation
4. Medical report (physical status) if available
5. Visiting teacher report (to be supplied by the school board).

The school calendar for the Day Hospital for Children is the same as that used by the public schools in the parish, with the regular sessions beginning in September and extending through May. Only ten students are admitted to the school during the regular term. However, during the special summer session, approximately forty students are admitted to the Day Hospital for Children.

The objectives of the summer sessions are to offer the following services:

1. Diagnostic observation
2. Short-term treatment of children and parents
3. Intensive treatment in specialized areas

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[3]"Regulations Governing the Operation of Classes for Emotionally Disturbed Children Housed at the Baton Rouge Mental Health Center" (October 6, 1967), p. 1. (Mimeographed.)

4. Remedial work for school credit

5. Tutoring that is not for school credit

6. Speech therapy.

The 1968 summer session of the Day Hospital for Children began June 17 and extended through August 23. Young children attended the program during the mornings from 8:30 until 11:30, while the adolescents came in the afternoons at 1:00 and remained until 4:00. Twenty-eight young children between the ages of five and eleven, and twelve older children from twelve through fifteen years of age were referred to the ten-week program. Depending on the severity of their problems, the children were assigned to attend the program, one, two, three, or five days each week.

The staff for the special summer session of the Day Hospital for children was composed of five graduate students, two recent college graduates, and three under-graduate students under the direction of the social worker who was in charge of the Day Hospital for Children. A psychiatrist served as a consultant for the summer session. The staff members represented disciplines including: (1) psychology; (2) social welfare; (3) special education; (4) art, (5) physical education; (6) speech; and (7) elementary education.

The summer session was preceded by a one-week planning session which lasted from June 10 until June 14. During the planning week, the investigator and staff members examined the records of the children referred to the Day Hospital for Children. Informal lectures and discussions between the

staff and social workers, psychiatrists, and psychologists were held. Films concerning emotional problems of children were viewed by the staff. Plans were made for coordination of the many aspects of the program.

The summer program of the Day Hospital for Children was divided into three units which included one hour of classroom instruction, one hour of art, and one hour of games, with a ten-minute recess during the three hours. The academic work was individualized to each subject's needs. A variety of art projects was presented. With the exception of those students in the movement program, the hour devoted to games frequently consisted of films, although there was quite an array of commercial games available for the children. In addition, some of the children participated in speech therapy and psychotherapy. The subjects participated in the movement programs during their game period.

The investigator and summer staff members participated in meetings which were held one day each week throughout the summer program. Cases of children enrolled in the summer session were presented by the social worker in charge of the case. Staff members asked questions and related observations of the children. A psychiatrist, as well as the social worker in charge of the school, served as advisors during the meetings.

Selection of Students as Subjects

A brief proposal containing a statement of the problem, purposes, program content and evaluation measures for this study was submitted to Dr. William P. Addison, State Commissioner of Mental Health and Director of the Baton Rouge Mental Health Center. Permission was obtained from Dr. Addison to conduct the movement program at the Baton Rouge Mental Health Center using children enrolled in the 1968 summer session of the Day Hospital for Children.

After reviewing the records during the one-week planning session, the investigator selected the nine subjects who were scheduled for daily attendance because of the severity of their problems. All were males. Six additional children, two males and four females, were chosen from those who were scheduled to attend either two or three days each week. From previous experience with the parents, the social workers were able to help the investigator select subjects from the latter group who would probably be dependable in attendance.

Seven of the subjects who completed the program were younger children ranging in age from seven to nine and attended the morning session. All seven of the subjects were males. Six of these subjects attended the program five days each week while one of the males attended the program only three days.

Of the five older subjects completing the program, four were males and one was female. Their ages ranged from

twelve to fifteen. Three of the males attended the afternoon program daily while the fourth attended three days each week. The only female to complete the program attended two days each week.

SELECTION AND ADMINISTRATION OF TESTS AND EVALUATION TECHNIQUES

Interview

An interview sheet, to be used as a flexible guide, was constructed by the investigator. See Appendix A. On the first day that each subject reported for the movement program the investigator conducted an interview. The purposes of the interview were: (1) to become acquainted with the subjects; (2) to find the interests of the subjects; and (3) to get the subjects' reactions as to what their capabilities were in certain activities.

Questionnaire

A questionnaire for the parents of each subject was constructed by the investigator to determine: (1) the abilities of the subjects to perform certain activities; (2) the ages at which certain activities were learned by the subjects; (3) the kinds of activities in which the subjects and parents engaged in; and (4) the parents' suggestions for activities in which their children might be interested. The questionnaire appears in Appendix B.

During the first week of the program, the questionnaires were distributed by the social worker in charge of

the case. Most of the parents completed the questionnaires while attending therapy sessions. Those parents who were not scheduled to come to the Mental Health Center the first week of the study received their questionnaires by mail.

Lincoln-Oseretsky Motor Development Scale

A test which has been often used in psychology, the Lincoln-Oseretsky Motor Development Scale,[4] was selected to evaluate the subjects' motor development. Thompson, in Child Psychology, stated that the Lincoln-Oseretsky is probably the most promising test of motor ability available and that it should prove useful in the research of children undergoing special programs of remediation or enrichment in motor skills.[5] Espenshade asserted that no comparable scale exists and that the Lincoln-Oseretsky should prove a valuable tool for the study of certain aspects of motor development in children, especially those between six and twelve years of age.[6] Although some of the children in this study were older than twelve, most were immature in their physical skills and it seemed advisable to use the same test for all subjects regardless of age.

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[4]William Sloan, Manual for Lincoln-Oseretsky Motor Development Scale (Chicago: C. H. Stoelting Company, 1954).

[5]George Thompson, Child Psychology (Boston: Houghton Mifflin Company, 1962), pp. 260-61.

[6]Oscar Krisen Buros (ed.), The Fifth Mental Measurements Yearbook (Highland Park: The Gryphon Press, 1955), p. 834.

The Lincoln-Oseretsky Motor Development Scale is an index to motor development and scores are reportedly not affected by strength or endurance. The scale, which includes both fine and gross motor skills, contains thirty-six items testing such factors of performance as balance, kinesthesis, rhythm and coordination. A booklet complete with a history of the scale, review of literature, instructions for administration and scoring, and specifications for equipment is available.[7]

Included in the thirty-six items of the Lincoln-Oseretsky Motor Development Scale are balance stunts such as walking a line on the floor, balancing on one foot and balancing on tiptoe. Tapping the feet and hands in unison for a given length of time is one item included to test rhythm. Examples of other gross motor skills contained within the scale are throwing a tennis ball at a target and jumping over a rope. Fine motor skills such as tracing a maze, cutting circles with scissors and placing matches in a box are included in the scale.

All of the thirty-six items in the scale are scored separately. There is a total of 159 points. Three points are possible for nineteen of the items while six points are possible for seventeen of the items. Many of the items allow the total number of points for each item correctly performed on the first trial and a reduction in points for correct

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[7]Sloan, loc. cit.

performance on the second or third trial. Tentative norms are available but give only an approximate placement in terms of percentiles.

The subjects were tested and re-tested on the Lincoln-Oseretsky Motor Development Scale by the investigator. The initial test took place at the beginning of the program, immediately following the interview. The investigator began to re-test subjects during the latter part of the ninth week of the program. From three to six days were required to test the subjects.

Child Behavior Rating Scale

Cassel's Child Behavior Rating Scale[8] was selected rather than behavior rating scales traditionally used in physical education for two reasons. The scales often used in physical education appear mainly applicable to normal children while Cassel's scale includes such items as (1) appears depressed; (2) behavior goes in cycles of good and bad; and (3) laughs when nothing is funny. This is typical of behavior evidenced by emotionally disturbed children. Most of the subjects in this study exhibited behavior which was quite immature. Cassel's scale, in contrast to scales used in physical education makes provisions for rather infantile behavior such as thumb sucking and frequent crying. In addition to the two reasons previously mentioned, the

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[8]Russell Cassell, The Child Behavior Rating Scale (Beverly Hills: Western Psychological Services, 1962).

Child Behavior Rating Scale is extremely simple to administer.

The Child Behavior Rating Scale is divided into five sections: (1) self adjustment; (2) home adjustment; (3) social adjustment; (4) school adjustment; and (5) physical adjustment. Specific items are listed under each section. Each item is rated on a scale from one to six.

Only the self adjustment and social adjustment portions of the Child Behavior Rating Scale were selected as flexible guides in evaluating overt psycho-social behavior of the subjects. In the evaluation of subjects, problems not listed on the scale were written in. The scale was primarily used to identify problems in behavior and the severity of these problems rather than as a means of formulating scores to compare with norms or other subjects.

The subjects were evaluated and re-evaluated in overt psycho-social behavior by the investigator and the classroom teacher who worked most closely with each subject. The investigator based her evaluations on the subjects' behavior while in the movement program. Classroom teachers based their observations on the subjects' behavior while in the classroom and in informal class activities. The subjects were evaluated during their second week in the program, and were re-evaluated at the end of the ten weeks.

Daily Observation Sheet

A daily observation sheet was constructed by the investigator to record information concerning: (1) length

of each session; (2) content of the program; (3) level of achievement; (4) overt psycho-social behavior; and (5) general reactions to the program. Prior to each movement session and in accordance with an overall plan, possible activities were listed on the daily observation sheet. The investigator completed the daily observation sheets after each subject's program, although occasionally the investigator was able to take notes during the session. A daily observation sheet appears in Appendix C.

FORMULATION OF MOVEMENT PROGRAM

Some recommendations concerning physical education for emotionally disturbed children were found in the literature. As substantiated in Chapter I, many emotionally disturbed children have poor motor coordination. Cratty suggested that children who evidence motor handicaps should participate in simple programs of movement education which emphasize: (1) agility; (2) balance; (3) strength, and (4) flexibility.[9] There is a need for the exceptional child's least adequate area of physical performance to be strengthened, so that by becoming proficient in basic areas, ability to learn additional skills may be improved.[10]

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[9]Bryant Cratty, Psychology and Physical Activity (Englewood Cliffs: Prentice Hall, 1968), p. 8.

[10]Donald Hilsendager, "The Buttonwood Farms Project," Journal of Health Physical Education and Recreation, XXXIX (March, 1968), 47.

Criteria as to the content of the program were that the activities could be performed:

1. With at least a minimum degree of success
2. With few instructions
3. Alone, or with the investigator and subject
4. In a limited space
5. With equipment that would not be a threat to the safety of the subject or investigator.

Perhaps the most important aspect of the movement program was the individualization which was consistent with recommendations by a psychiatrist concerning physical activities for emotionally disturbed boys.[11] The movement programs were individualized to each subject's needs, interests, and age level, and consisted of basic skills for those subjects in need of a remedial program, and games, skills and special interest activities for the subjects of essentially average ability.

Following a survey of literature concerning emotionally disturbed children, books in physical education were reviewed to find the types of activities suited to normal children of different ages. Schurr's book concerning physical education for elementary school children was typical of many books in the area of elementary physical education.[12] Activities which Schurr recommended for young children were

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[11]Kyllonen, loc. cit.

[12]Evelyn Schurr, Movement Experiences for Children (New York: Appleton-Century-Crofts, 1967), pp. 53-54.

classified in four areas: (1) games; (2) dance; (3) basic movement skills; and (4) gymnastics. Activities in each area were to be selected on the basis of contribution to the particular phase of development of the children.

A basic movement program for emotionally disturbed children was developed based on the review of literature, observations of emotionally disturbed children, and suggestions from persons who had worked with emotionally disturbed children. Based on this information, objectives of the activities were formulated to: (1) improve certain gross motor skills; (2) provide successful experiences; and (3) provide a medium of expression through physical activities. Activities to meet the general objectives were chosen with emphasis upon: (1) agility; (2) balance; (3) strength; and (4) flexibility as recommended by Cratty.[13]

The basic movement program was formulated as a flexible guide for individualized movement programs and included the following divisions: (1) conditioning exercises; (2) basic skills; (3) rhythms; (4) stunts and tumbling; and (5) simple games and activities. The five areas of activities selected for the basic movement program were similar to the areas of activities classified by Schurr.[14] Conditioning exercises consisted of conventional activities such as are commonly found in school programs and

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[13]Cratty, loc. cit.

[14]Schurr, loc. cit.

included push ups, squat thrusts, sit ups and other exercises. The basic skills area contained basic locomotor skills and ball handling and striking patterns. Dancing, twirling and singing games were a few of the activities listed in the rhythms section. Stunts and tumbling activities contained in the basic program included balance stunts, animal imitations and other basic movements such as the forward roll and head spring. The simple games and activities area consisted of modified ball games, skating, rope skipping and other activities. A more complete list of examples of the types of activities which were presented in the five basic areas appears in Appendix D.

After tentative formulation of the movement program, approval was obtained from Dr. William P. Addison, Director of the Baton Rouge Mental Health Center, of the movement program objectives and the activities to be presented.

ADMINISTRATION OF THE MOVEMENT PROGRAM

The movement program was administered by the investigator and an undergraduate student in physical education. The investigator and assistant sometimes worked together with a subject, and at other times the assistant took one subject into the hall to skate while the investigator worked with another subject.

Subjects were taken from the games and art programs, and occasionally from the classroom activities to participate

in the movement program. Subjects were escorted, frequently by the assistant, to and from the movement program.

Because of the desire of the emotionally disturbed children for immediate and complete attention, most of the subjects took part in the program on an individual basis. Occasionally the younger children participated in small groups, while group activity was a regular part of the adolescent program.

The movement program took place in a large unfurnished room and hall. Equipment was stored in closets and cabinets in the room. A complete list of equipment used in this study appears in Appendix E. Although no outdoor play area was available, the adolescents participated in some group activities in a near-by park area which was within walking distance.

The summer session extended through a ten-week period. However, not all of the subjects attended the program for the entire period. Those subjects attending the program daily usually remained approximately twenty minutes each day, while those subjects attending the program less frequently spent more time in each session.

As has been stated, the emotionally disturbed child may have experienced many failures and therefore doubt his own abilities. Consequently, he tends to have strong need to succeed. An effort was made to be flexible in content of the program as well as in methods used. Subjects were introduced to as many of the areas of activities as possible.

When a subject evidenced little interest in a task, another was usually presented.

There are suggestions that as plans are shelved time and time again, the teacher of emotionally disturbed children must become a master at innovation and substitution. Emotionally disturbed children tire quickly and the work seldom goes smoothly. Plans frequently may not be realized in the sequence or way intended.[15] An effort must be made to find areas of interest for each child.

> It would appear that a leisurely (but well-motivated) approach under conditions that favor at least moderately successful performance would favor the acquisition of motor skills.[16]

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[15]Nicholas Long, William Morse, and Ruth Newman (eds.), Conflict in the Classroom (Belmont, California: Wedsworth Publishing Company, 1965), pp. 387-88.

[16]Thompson, op. cit., p. 266.

CHAPTER IV

PRESENTATION OF CASE STUDIES

CASE A

Background Information

Alan was an eight-year-old male from a large family in which the children were very closely spaced. The parents, who were in their mid-thirties, were in a lower middle-class income range and had been described as suffering from mental illness. Alan was the third oldest of four boys and two girls whose ages ranged from five to eleven years. One child younger than Alan was born prematurely just eleven months after Alan was born. The new baby required much attention and the mother stayed in the hospital for some weeks. Alan never received much attention from that time on. According to the parents, he always seemed very jealous of the other children in the family and the attention given to them. Alan developed asthma at the age of one. He learned to walk at one year, although he had never crawled. Alan was in therapy in another city at the age of four because of bizarre acts such as getting up in the middle of the night and tearing up bread.

At the age of six, Alan was referred to the Baton Rouge

Mental Health Center by his mother, who was a patient in the adult service. The mother, who had recently been released from a mental hospital, reported that Alan's father had also received some psychiatric treatment nine years previously. Alan was referred because of academic difficulties, inability to play well with other children and his refusal to cooperate with his parents and teachers.

The psychiatric evaluation of Alan at six produced a diagnosis of childhood psychosis. Alan hallucinated throughout the interview and said that he also listened to the voice during the day while at school and this was why he was unable to concentrate. The voice would say, "You're doing good in school; you are good." Alan revealed that he believed that he had caused his mother's illness.

The psychological evaluations, also done when Alan was six years old, indicated an IQ of 99, while his potential appeared to be at a bright normal level. His preceptual motor coordination was reported to be within normal limits.

During the two years between Alan's first referral and the beginning of the summer program, the subject was involved in play therapy groups and received two additional psychiatric evaluations which yielded diagnoses of schizoid personality, with an indication of low frustration threshold and adjustment reaction to childhood. Alan's schooling took place in a parochial school where he repeated the second grade. During this period, Alan's father stated that Alan seemed to desire attention and was frequently severely

whipped for this.

During the early part of the summer program at the Day Hospital for Children, Alan was away visiting his grandparents. During his stay, he set fires inside of the grandparents' house on three separate occasions. The fires were severe enough to warrant calling the fire department and having a truck sent to the house.

Alan was enrolled in the Day Hospital for Children on a five-day-a-week basis. He came into the summer program three days late, and was in attendance thirty-six of the fifty days, being absent the complete fourth and tenth weeks of the program.

Information From Interview and Questionnaire

Alan came willingly for his interview on the first day that he attended the summer program. He was very quiet and cooperative, but he appeared tense, stuttering and biting his nails. Alan said that he had never had physical education, his class just played chase. He stated that he liked to play football, but did not like to play chase. Alan said that he enjoyed playing outside in his new plastic swimming pool. In replying to other questions, Alan reported that he could skate a little, ride a bicycle, and swim, although not very fast. He stated that he liked to go to ball games, although he admitted that he had never been to one. Alan said that he liked to jump rope a little, but could not stand on his head or do a cartwheel. When asked to name his

favorite game, Alan said, "football is my good game."

Alan's mother and father jointly filled out a questionnaire and generally confirmed Alan's answers given during the interview regarding acquisition of physical skills. In selecting activities in which the parents believed Alan would be interested, skating was the only activity listed on the questionnaire which the parents indicated that Alan might enjoy; bowling, horseback riding, swimming and fishing were activities written in by the parents as activities which might be of interest to Alan.

Initial Evaluation

The subject was most conscientious and cooperative, though tense, throughout the first administration of the Lincoln-Oseretsky Motor Development Scale. Although Alan wrote with his left hand, he seemed to prefer his right hand for many of the items, and was able to cut paper with scissors in his right hand only. His score on the Lincoln-Oseretsky was 57, which lies between the 25th and 39th percentile norms for males.

The behavior rating scales completed by the teacher and the investigator at the beginning of the program were almost identical and suggested that Alan was rather withdrawn. Both ratings indicated areas of difficulty in: (1) self confidence; (2) unhappiness; (3) stage fright before a group; and (4) insecurity with friends. Most of the staff members described Alan as a cooperative, quiet, nonaggressive boy.

Movement Program

Alan was probably the most consistent and cooperative of the younger boys. He could perform basic movements with average ability and his overall ability to move and learn new skills seemed adequate. His most notable successes were in skating and tumbling. Although Alan could balance and move on skates, he could not really roll. Alan learned to skate backward by the end of the program. During the movement program the subject learned a backward roll, cartwheel, head stand, and a head spring off of a rolled mat. Alan could jump rope about twenty-five times when he began the program and by the end of the program could run in and out of the rope and was consistently jumping one hundred times or more. The subject's striking patterns and ball handling improved and he enjoyed counting the number of times that he could bounce balls against the wall and dribble with each hand. He could dribble better with his right hand than he could with his left, although he was left handed. Alan enjoyed doing animal imitations and stunts to some extent, and was the only male subject who would occasionally do rhythmical movements to music. The subject attended a summer camp during the fourth week of the summer program. Conditioning exercises were done at the camp and the subject was very proud that he had learned many of the exercises already and was thereafter motivated to perform many of the exercises. The investigator would often let Alan choose the activity that he wanted to participate in first each day. When Alan

said that he did not want to do an activity, he was not forced to do so; but, he could frequently be persuaded to try the activity later in the period. Alan usually stayed in the program for at least thirty minutes each day. Skating, Alan's favorite, was always reserved for the last activity.

At the beginning of the program, Alan would not retaliate against other children, regardless of actions taken against him by the children. During the early weeks of the program, the investigator tried having another subject of the same age participate in the program with Alan, but the other subject so completely dominated Alan that most of the program thereafter was conducted on an individual basis. Through the summer the subject gradually became more aggressive. Alan became very jealous of his position as the first subject to be called to the game room each morning. Toward the end of the program he would even become hostile with subjects who would attempt to enter the game room ahead of him.

In the last few weeks of the program, a subject of about the same age as Alan occasionally took part in a portion of the session devoted to tumbling. Alan would wait his turn to tumble on the mats since each turn was of a relatively short duration. However, in rope skipping, Alan would not wait his turn with the same subject when the boys were seeing how many times thay could jump without missing. In this activity, the wait between turns was much longer and Alan would usually stick his hand or foot into the rope.

Occasionally when a subject was absent, Alan would stay in the program through the time of the absent subject. Alan had an extremely long attention span in the activities and probably would have spent his entire morning in activities had he been permitted to do so. Toward the end of the program he became somewhat uncooperative about leaving when his turn was over. Alan would often sneak away from other classes and try to come back to the game room.

There seemed to be some carry-over of activities presented in the program to the home life of the subject. Alan said that he liked to practice the cartwheel in his yard at home because, "it makes me feel like a wheel." The parents took Alan to a skating rink and he had much to tell the following day about music that was played while he skated, skates that were a part of shoes, and men who skated backward. Alan related that his mother had said that he might get skates for his birthday.

Only two times during the summer program did Alan seem quite depressed when he came into the game room. However, his depression disappeared by the end of the movement program. The subject volunteered several times that he liked "physical education" here and wished that they did more than just play chase at his school. He confided that he liked summer school better than his school and did not want to go back to the parochial school.

Near the end of the summer program the investigator was cleaning the game room when Alan came into the room to

help. His classroom teacher, who also directed a play therapy group in which Alan was a member, came to take him to rehearse his part for a puppet show which was to be performed for guests. Alan was noticeably displeased because he could not remain to help the investigator straighten up the room. He threw a hula hoop on the floor and stalked out of the room. The teacher expressed some surprise and said it was the only time he had ever seen Alan angry.

Final Evaluation

When re-tested on the Lincoln-Oseretsky, Alan was not happy about giving up the other activities in order to perform the "stunts." For motivational purposes, a chart was kept and stars were awarded for each item attempted. The subject was less tense during the re-test and was highly motivated by the candy and stars placed on the chart. The score for the second administration of the test was 77, which lies between the 78th and 85th percentile norms for males.

The re-evaluation by the teacher and investigator using the Child Behavior Rating Scale indicated that Alan no longer appeared unhappy and had improved in: (1) self confidence; (2) confidence before a group; and (3) security with friends. The teacher believed that the most striking change was that Alan had become a much happier boy.

The psychiatric re-evaluation resulted in a diagnosis of behavior disturbance of childhood. The psychiatrist believed that Alan had improved considerably over the last

couple of years by his experiences outside the family. However it seemed that Alan had had something of a catastrophic reaction in the face of his inability to satisfy the demands of the teachers in the parochial schools which he had attended. A physical examination revealed physical development on the low side of average for his age. It was concluded that Alan seemed to have benefited from the summer program and to a great extent was, "pulling himself up by his own boot straps." The psychiatrist also noted in the re-evaluation that Alan had done particularly well in the "physical education" portion of the summer program.

In conclusion, the investigator felt that the subject improved in: (1) motor development; (2) specific physical skills; and (3) overt psycho-social behavior. The investigator felt that the overall improvement resulting from the movement program could be due to the individual attention and praise, and to success in achievement in physical skills. Success was particularly important to this subject who had experienced so much failure.

CASE B

Background Information

Bert was a nine-year-old male from a family in the lower middle-class income. The subject, who was next to the oldest child in the family, had two brothers and two sisters. Bert reportedly had a normal physical development, although at the age of three he suffered a head injury which resulted

in a coma and required three weeks of hospitalization. The parents believed that Bert sustained no permanent damage from this injury.

When Bert was four years old he witnessed his mother slashing her wrists. The mother was taken away by the police and Bert was given no explanation as to what had happened. Bert's mother felt that this was the beginning of the subject's problems. The father did not share this opinion because he felt that the incident had not affected the other children in the same way. The mother had made three subsequent attempts to commit suicide by overdoses of pills and felt much guilt about the attempts and their effect on her children. The father, who was fifty-three, was thought by the social worker to dominate his thirty-five-year-old wife.

Bert was first seen at the Mental Health Center when he was seven years old while his mother was hospitalized in a mental institution. Bert was referred because he had stolen money from his father, had no respect for the property of others, got along poorly with his siblings, told outrageous lies, and had nightmares. Although Bert never stole at school, he would steal large amounts of money from his father, no matter where his father would hide it. Bert was constantly in trouble at school, in the neighborhood, and at home. Bert's conduct grades were consistently poor, but he was able to pass his academic subjects in the public school.

Bert was diagnosed as having childhood adjustment reaction characterized by extreme feelings of insecurity

which had reached the point of almost being overwhelming. The subject felt that either his mother would die or that he would in some way lose her. His stealing seemed to be an obvious attempt to recover lost love, or love that he feared that he might lose. His lying was diagnosed as a means by which he could defend himself against the truth or his own fears and insecurity and was another way of denying to himself the situation that existed at home.

Bert was re-admitted to the Baton Rouge Mental Health Center, at the age of nine, just a month and a half before this study began. The subject's mother, who was an adult patient at the center, reported that some days Bert was calm while other days he became furious and expressed his rage in terms of wanting to kill his father. Bert frequently awakened in the night and went into his parents' room and slept in a large chair by their bed. The father reported that Bert sometimes pinched himself to the extent that he appeared injured and then would show his mother saying that he had been injured by his siblings. Bert was anxious about numerous big boys at school who, according to Bert, were going to attack him.

In the interview with the social worker, Bert was quite anxious and could hardly sit still. The subject related that his mother was quite ill and had been told if she did not quit smoking she would die. The mother continued to smoke and Bert felt that his mother was in this manner trying to kill herself. The illness of Bert's mother was

substantiated and the mother was unable to continue her treatment at the Mental Health Center.

Tests of intelligence were never given to Bert because of his obvious capabilities, and his adequate school performance. The subject had made A's and B's in the third grade.

The psychiatrist found that Bert had experienced a period of marked anxiety which prevented his sleeping well, made him hyperactive and uncontrollable at school, and could have been responsible for his hostility and attacks on his siblings. The psychiatrist further stated that there seemed to be a close relationship between Bert and his mother, with some hostility on the part of the father because of this relationship. Bert was placed on medication and referred to the summer session at the Day Hospital for Children on a five-day-a-week basis. Bert was constant in his attendance during the summer session, being present forty-five of the fifty days.

Information From Interview and Questionnaire

The subject came willingly with the investigator for the interview. Bert was cooperative and seemed interested although he was hyperactive. The subject stated that he had had physical education at school and liked it. He related that baseball was his favorite activity and he played baseball in the afternoons after school. The subject stated that he could skate, ride a bicycle, and swim. (The subject

was not able to skate and the father indicated that the subject could not swim.) Bert stated that his favorite game was ping-pong. (There was a ping-pong game in progress in the hall at the time of the interview.) The subject related that he did not jump rope because that was "girl stuff." When the investigator stated that she believed that professional athletes jumped rope at a well-known local health club, the subject said that he went to that health club each week for workouts. Bert said that he could not do cartwheels or stand on his head because that too was "girl stuff." The subject continually picked up the investigator's stop watch and stated that he would have to get himself a stop watch.

Bert's father completed the questionnaire. It was noted that the subject's father shared the illusion that Bert was currently able to skate. It was reported that Bert enjoyed playing out of doors and watching television. The father believed that Bert would enjoy ball games, skating, and conditioning exercises.

Initial Evaluation

Bert's score on the Lincoln-Oseretsky was 61, which lies between the 12th and 19th percentiles for males. Throughout the test, the subject was hyperactive. Bert was fascinated by the stop watch and sacrificed accuracy for speed. The investigator felt that the test score did not indicate a true measure of the motor development for the subject.

The classroom teacher and investigator agreed that the subject evidenced the following problems in behavior: (1) tries to be a show-off among friends; (2) sulks when unable to get own way; and (3) had difficulty finding things to do with self.

Bert's teacher at the day hospital further reported that the subject was extremely hyperactive and indicated that the subject's most apparent behavior problems, as listed on the Child Behavior Rating Scale, were: (1) behavior goes in cycles of good and bad; (2) hostile toward other children; and (3) is not a very good listener in conversation, while the investigator found the most severe behavior problems exhibited by Bert during the movement program to be: (1) mind tends to wander; (2) often alibis for mistakes; (3) tends to be on the go and can not relax; (4) is nervous; (5) behavior goes in cycles of good and bad; and (6) tends to be selfish and self-centered.

Movement Program

The subject was thin, pale, and somewhat weak, but appeared to be quite bright and well coordinated. Bert was almost always hyperactive and could not continue with an activity for any length of time. When the subject did not do well, he would make an excuse and quit. At the beginning of the program Bert did not want to come alone and requested that another boy be allowed to come with him. When this was arranged, Bert was unable to get along with the other boy,

and became even more hyperactive. Thereafter, the investigator had the subject come alone for most of the program.

The subject did some conditioning exercises and animal imitations, but for the most part preferred activity that involved some object rather than the manipulation of his body. Bert's rhythm and basic skills seemed good and his ball handling and striking patterns appeared adequate.

Bert was quite confident that he would be able to skate. He continued to say that he knew how, even as he put on the skates. The subject seemed to be trying to convince himself as much as the investigator. Bert was not able to skate and made excuses for a few days before he would try again. The subject eventually learned to skate forward and turn around.

The first time that Bert tried to jump rope he could only jump four times. By the end of the program, the subject had learned to run in and out of the rope and his best record for the number of times jumped without missing was 120. Bert learned to jump double rope and once jumped forty-five times. The subject was not interested in turning an individual rope for himself and could only jump about ten times with an individual rope. The subject learned to perform forward and backward rolls and a tripod. Bert was learning a head spring on a rolled mat, but when other children in the program began to perform the head spring better than Bert, he refused to try any more. Bert's most notable accomplishment, along with double rope, was his

ability to balance on the tilt board longer than any of the other subjects. The subject took great pride in "being the best."

Bert was the most erratic of the subjects. At the beginning of the program he periodically refused to come with the investigator for the movement program. Some days the subject would refuse to leave the program when his time was up, while other days he would announce as he came into the room that he had only five minutes to spend in activity. Occasionally Bert would enjoy all of the activities presented, while on other days nothing pleased him. When more than one subject was present, Bert would dominate the situation if the other child would allow it. If the other child retaliated, Bert would quickly retreat. The subject frequently would sneak up behind other children and hit them, then run away.

There seemed to be an overall improvement from the beginning of the program to the end in Bert's willingness to attend the movement sessions. The subject did not complain of physical ailments at the end of the program as he had done in the beginning. Early in the program Bert was thought to be one of the most skilled subjects, but he was surpassed in skills by many of the other subjects because of his short attention span and lack of consistency.

The subject told, with much confidence, fantasies such as living in a silver castle under the ground, being a black belt judo champion, making two hundred dollars a week,

and buying his mother real diamonds for her anniversary. Bert also occasionally used profane language, some of which seemed to be learned in the Day Hospital from other children.

Bert was cognizant of the notes that were being made by the investigator during each session. When he did not do well he would threaten to leave if the investigator wrote a report of his activities. When Bert did well, he would rush over to the table in the corner of the room and write on the daily observation sheet.

The subject enjoyed dodge ball. During the sixth week of the program, the investigator was "it" while the subject threw his ball at her. The subject got carried away and repeatedly hit the investigator with the ball, each time getting closer until the subject finally grabbed the investigator and twisted her arm. This action was related to a psychiatrist who believed that the action was, in general, a good sign and that some of Bert's hostility was beginning to come to the surface. Toward the end of the program, Bert would also use the plastic bats to beat on the walls, mats, and trash can.

Final Evaluation

Bert was highly motivated during the re-test of the Lincoln-Oseretsky. He became furious when the investigator would not let him remain and complete the entire test in one day. Throughout the test Bert would attempt to stuff his pockets with candy instead of taking one piece for each item

completed as the investigator had instructed him to do. During the re-test Bert broke the wooden rod that was used in the test, cut a hole in the investigator's shirt, and cut the investigator's hair. Bert's score on the re-test was 90, which lies at the 75th percentile for males.

The subject's behavior, as measured by the Child Behavior Rating Scale remained essentially the same and the subject continued to be a behavior problem throughout the program at the Day Hospital for Children.

During the psychiatric re-evaluation Bert did not appear hyperactive nor show signs of tension. It was reported that Bert appeared to be suffering from some degree of malnutrition. The diagnosis was depressive reaction with considerable agitation present. It did not seem that the basic depressive process had been modified to any extent although the medication was helping to control the condition. Bert was quite concerned about the ending of the school program and some of his depression may have been a reflection of that anticipated loss.

The investigator concluded that the subject improved in motor development and specific skills. The investigator felt that the favorable results from the comparison of the Lincoln-Oseretsky test and re-test were due to increased motivation rather than improved ability. Although there was improvement in skill, the inconsistent behavior of the subject affected the improvement which was probably below the capacity of the subject. There seemed to be no substantial

overt psycho-social behavior change in the subject, although he seemed a little more openly aggressive. Probably the most promising change in Bert regarding the movement program was his increasing desire to take part in the program as the summer progressed.

CASE C

Background Information

Chuck, an eight-year-old boy, was the youngest of four boys in his family. Two of the subject's brothers were stepbrothers by the mother's previous marriage, which ended in the death of her first husband. The stepbrothers were twenty and fifteen years old. Chuck and his ten-year-old brother were the sons of a thirty-three-year-old father. The mother would not give her age, but apparently was older than her husband.

Chuck was born one month premature at a time when the family was experiencing some financial difficulties. The subject was jaundiced at birth but was otherwise a healthy baby. Chuck reportedly banged his head on the crib and cried frequently. The subject began to walk at approximately fourteen to eighteen months of age. He started talking at about two and a half years, but could not be easily understood. The subject was not toilet trained until he was four and a half.

Chuck often wandered away from home and the parents

feared that he would run out into the street. He had a very short attention span and his only interest seemed to be in drawing. The subject lived in a world of his own which consisted largely of cartoons on television.

The parents stated that attempts to discipline Chuck with punishment was useless. The father thought that Chuck's actions were done for his personal satisfaction, while the mother believed that the subject's behavior was an attempt to get the attention of the father. Chuck appeared to be unafraid of anything and would often climb on the television antenna and other places. Two years prior to thisstudy the subject broke his arm by putting it into the washer after his mother had repeatedly told him not to dosso. Chuck also frequently stuck his hands into the toaster.

Chuck was referred to the Mental Health Center on an emergency basis by the Special Education Department of Louisiana State University four months before this study began. The subject had liked school in the first grade, but his teacher had strongly advised that Chuck be kept at home until other arrangements could be made because he continually wandered away from the class. Chuck did not follow directions well at school and was a disrupting influence in the classroom.

Intelligence tests classified Chuck as a borderline educable mentally retarded child, with a full scale score of 72. It was the psychologist's opinion that Chuck had normal intelligence, and that his lowered level of functioning was

due to his emotional problems. Often the subject was either unwilling or unable to respond to questions. However, when the subject did respond, his responses were often inappropriate, being only slightly connected and at times completely unrelated to the psychologist's question. Perceptual-motor integration, as demonstrated by performance on the Bender test, was essentially within normal limits for the subject's age group and it seemed likely that Chuck's ability in this area was somewhat above average.

The psychiatrist diagnosed Chuck as an overweight child who expressed his aggression by eating. Throughout the psychiatric evaluation Chuck talked to himself in a very soft whisper. The subject tended to ignore the psychiatrist. Associations were extremely loose and the psychiatrist had difficulty making any sense out of what the subject was saying. Chuck had an imaginary friend with whom he conversed a great deal. The subject was diagnosed as having childhood schizophrenia.

Chuck was then admitted to the spring term of the Day Hospital for Children. The subject would not talk and would crawl under his desk when he first began attending the Day Hospital. Chuck often thought of himself as a creature he called "super worm." He had an unnatural fear of getting even slightly dirty. When he would get excited, he would crawl rather than run. The subject had first learned to run just months before this study began.

Chuck attended the summer session of the Day Hospital

for Children on a five-day-a-week basis and was present forty-six of fifty days. On the first day, the subject would not come with the investigator for the interview. Chuck seemed afraid to leave the other children although he was loud rather than shy. The subject stated that he did not believe that the investigator had brought play equipment and refused to even look in the play room. The investigator sat and watched Chuck in art class, commenting on his good art work, and finally got a promise from Chuck that he would come with the investigator the next day.

Information From Interview and Questionnaire

The following day, the subject came willingly for the interview. He would not remain seated and wandered about the room pulling equipment from the closets and shelves. Chuck said that he "liked to play at school" when the investigator asked the subject if he liked physical education. When the investigator asked the subject what he liked to do after school, the subject replied, "yes." The investigator asked the subject if he could skate and Chuck replied, "yes, I have juicy tid bits." When asked if he could ride a bicycle, the subject said, "I wish that you would learn how to fix the flat tire on my bicycle." To the question as to whether he could swim, the subject stated, "I don't have a pool any more." The subject answered, "yes" when asked if he liked to go to ball games. However, the subject's parents indicated on the questionnaire that Chuck never had gone to

ball games. When asked if he could jump rope, the subject said, "no, if you pour water in my eyes." The subject answered, "no" when asked if he could stand on his head.

On the questionnaire, the parents reported that Chuck could not skate or swim and had never attended ball games. It was indicated that Chuck could ride a bicycle and occasionally did so. According to the parents, Chuck enjoyed playing both indoors and out of doors, liked to watch television and enjoyed climbing and swinging. The parents reported that Chuck had seemedtto like physical education at school. According to the information on the questionnaire, the parents took part in no activities. Ball games, skating, tumbling, and conditioning exercises were thought by the parents to be the activities in which Chuck would be interested.

Initial Evaluation

The investigator was unable to administer the Lincoln-Oseretsky to the subject. Chuck completely ignored the investigator and would not cooperate in any way.

The items on the Child Behavior Rating Scale that Chuck's teacher believed to be serious problems were: (1) seems to have little self-confidence; (2) daydreams and "mind" tends to wander; (3) personal values often not accepted by others; (4) tends to be on the go and can not relax; (5) is very nervous and excited about things; (6) has trouble controlling temper; (7) is not very tactful with others; (8)

behavior goes in cycles of good and bad; (9) is aggressive and hostile towards others; (10) is a poor sport and a poor loser; (11) has trouble making friends; (12) has trouble keeping friends; (13) plays with children younger than self; (14) has bad and unacceptable manners; (15) has difficulty finding things to do with self; and (16) is not a very good listener in conversation. The teacher felt that Chuck generally seemed to be out of touch with reality.

The investigator concurred that Chuck often appeared to be in a world of his own and also noted the same problems in behavior as had the teacher, except that the investigator did not observe the subject to be hostile toward others nor a poor sport or poor loser. In addition, the investigator observed the subject to laugh frequently when nothing was funny.

Movement Program

At the beginning of the movement program there was a lack of communication between the subject and the investigator. The subject often did not seem to hear the investigator and would use words and phrases which were out of context in the conversation. The communication became better as the program progressed and by the end of the program the subject had begun to call the investigator by her name.

The subject showed little enthusiasm for the program at the beginning though he was usually willing to come with the investigator. As the program progressed, and the subject

learned to skate, he showed a strong desire to come to the program. Chuck would ask the investigator in the hall if he could be next to skate, and once had a temper tantrum because he thought it was his turn to skate while someone else was skating.

Initially, Chuck would only throw, catch, and strike at balls. The subject would ignore any suggestions to take part in other activities, although he would occasionally walk on the balance beams. While the subject was throwing and catching he would often ask the investigator the definition of words such as near, far, love, and death. The subject knew many technical terms of which a large number apparently learned from cartoons on television.

During the second week of the program, the subject began to try to jump rope as the investigator turned the rope for him. By the fourth week he was able to jump four times in succession. His ability to jump improved so that he was able to jump about thirty times during the last two weeks of the program.

The subject attempted to skate during the fourth week of the program. Both the investigator and the assistant had to give assistance because of the weight of the subject and his complete inability to balance his weight over the skates. Usually, he would lean back while the investigator and the assistant pushed him along much as one might push a wheelbarrow. By the end of the program Chuck could skate alone although he still lacked skill.

Chuck improved most in rope skipping and skating. In rope skipping, as in skating, Chuck would collapse on the floor when he was doing quite well rather than attempt to push himself to his limit. A psychiatrist suggested the possibility that Chuck was getting too close to "normal" and it was much safer to be sick.

In the last two weeks of the program Chuck began to do forward rolls by himself when he saw other children doing them. He had previously refused to even try forward rolls. The subject also began trying to balance on the tilt board. Until the last two weeks of the program, he had turned the tilt board upside down, sat on it, and called it his boat.

Final Evaluation

The investigator was able to test Chuck on the Lincoln-Oseretsky at the end of the program. This was believed to be a significant accomplishment in itself. Chuck was highly motivated by the stars and candy. His enthusiasm waned toward the end of the test. He finished the test with a score of 61. Sixty lies at the 39th percentile for males. The investigator believed that the subject was capable of performing slightly better than he did on the test.

The one item on the Child Behavior Rating Scale that seemed to show improvement, according to Chuck's classroom teacher, was the item relating to his bad and unacceptable manners. The teacher also commented on the less frequent appearance of Chuck's imaginary friends by the end of the

program. It was interesting to note that Chuck had never talked through "super worm" or other voices while he was involved in his movement program. He once believed the wall was talking to him when he heard the sound of a motion picture coming from the next room.

The investigator found the subject's overt psychosocial behavior to be much improved. The only items which continued to be observed as serious problems were: (1) nervous and excited about things; (2) daydreams and "mind" tends to wander; and (3) has trouble controlling temper. It seemed significant that the subject had made two friends during the summer session who also returned the friendship.

Chuck's condition had previously been diagnosed as childhood schizophrenia. The re-evaluation indicated that the present level of organization was more intermittently psychotic. The psychiatrist described the subject as a warm likeable child who was regarded by the staff somewhat as a pet animal who was fun to have around and play with, but from whom possibly not much could be expected. The psychiatrist considered Chuck to be very intelligent and even creative. The subject had shown some gain in behavior although he still appeared to be quite frightened and passive. Chuck denied knowing the psychiatrist, giving a facade of being stupid and crawling under the psychiatrist's desk while being questioned about school and home. Upon request from the psychiatrist, Chuck drew a picture which was described as rather typically primitive. After being offered a reward

for drawing a picture, Chuck drew a rather clever cartoon which the psychiatrist considered to be in no way psychotic. Chuck was anxious to leave the interview and the psychiatrist speculated that the subject became frightened by his degree of health and preferred to retreat to the psychotic child schizophrenic process as a way of warding off threats which he perceived as coming from the environment.

It was concluded that the subject had improved in overt psycho-social behavior and physical skills though the physical skills remained at a low level. Motor development in the subject was thought to be about normal. It could be surmised that this subject had never had an opportunity to learn many physical skills because of his inability to take directions and the need of this subject for individual instruction over a relatively long period of time in order to learn even basic skills.

It was also significant that this subject developed intense interest in activities, despite his lack of skill and obvious shortcomings in relation to most of the other students in the Day Hospital.

CASE D

Background Information

Dan was born to his nineteen-year-old mother the first week of the seventh month of pregnancy, and weighed just over three pounds. The subject's mother was afraid to care for such a small infant and the father took care of Dan when he

was first brought home from the hospital. The paternal grandmother lived near the family and would never allow the mother to discipline Dan as a young child. The subject had two sisters older than he and one brother two years younger.

When Dan was five years old, he took a knife from the kitchen and sliced the fingers of a young girl, nearly severing the thumb.

The family was living in another state when Dan began school. Records from this school indicated that Dan had experienced severe learning problems. A neurosurgeon who had evaluated him and believed that there was an appreciable degree of brain damage. The principal of the school Dan first attended indicated that the subject was completely unmanageable, and Dan's teacher had reportedly suffered a nervous breakdown.

In one of many reported incidents, Dan pushed a young neighbor child into a fish pond, and would have left the child to drown if Dan's mother had not discovered what had happened and rescued the child.

At home and in the neighborhood Dan was extremely cruel to his siblings and neighborhood children. He had set fires, initiated small children in sex play, drove neighbors' cars, stole from homes, and even tried to kill several children.

The parents, who earned a middle-class income, described the family as happy and normal, except for Dan. The mother had worked in a department store but no longer worked

because she felt that she had to be at home with Dan, as the father's work frequently kept him away from home. The family had moved three times in the two and a half years they had lived in the city where this study took place, and the parents feared that they might have to move again because families in the neighborhood were signing a petition to that effect because of Dan.

The nine-year-old subject was first seen in the Mental Health Center two months before this study began. Dan was referred by the visiting teacher and principal of his school. The subject had been dismissed from the school for hitting his teacher with his fists. The principal reported Dan to be violent on the school grounds and unmanageable in the classroom although he was taking tranquilizers prescribed by his family doctor. The principal said that Dan could remember long enough to hold grudges, which were always paid in full, but was unable to remember simple word lists for several hours. The subject delighted in injuring children, especially girls.

Dan's mother stated that she had completely lost control of Dan. When she attempted to hit him with a switch, he would grab the switch, break it, then pound her with his fists. According to Dan's mother, the subject had no sense of guilt or feelings of remorse, would laugh after being punished and never cried.

The psychological evaluation revealed performance on all measures of intellectual and developmental maturity to

be clearly deficient, ranging from the upper limits of the mentally retarded range of functioning upward into the dull normal range. In view of his inconsistent effort and noticeable distractability, the psychologist judged Dan's intellectual potential to be within the dull normal to lower limits of the normal range.

Lowered intellectual efficiency, some indications of perceptual-motor immaturity, a history of hyperactivity and hyperaggressiveness, together with the opportunity for cerebral damage associated with premature birth were believed to substantiate the possible neurological complications. However, the psychiatrist was convinced that much of Dan's difficulty, especially the management problems which he exhibited at home and at school, represented a learned manipulation of adult authority and acquisition of aggressive and rebellious behavior patterns. The psychiatric evaluation was brain damage with emotional overlay. Dan was immediately placed in the spring session of the Day Hospital for Children although only a few weeks remained in the school year.

On the first day of the summer session at the Day Hospital, the subject refused to go to any of his classes or to come with the investigator. In referring to the investigator, Dan would say, "get her away from me, she is following me." He ran up and down the halls in an uncontrolled manner using vile language and said that the staff members were "nasty." Dan showed a decided dislike for all of the females.

The subject was aggressive and hit some of the teachers. An immediate conference was held between the psychiatrist and the director of the school. Dan's medicine was changed and he was given his medicine at the Day Hospital when his mother was unable to get him to take it at home. The subject became less truculent after the medicine change but continued to show a dislike for the investigator and refused to come for the movement program. After three days of trying to persuade the subject to come, the investigator ignored Dan and spent her time with the other children.

During the second and third weeks of the summer session, Dan occasionally appeared in the play room when he was supposed to be elsewhere. The subject would sit quietly and watch the other children, occasionally commenting that he thought that he could do some of the activities. The investigator did not ask him to join in activities but she did let him stay and watch the other children. The first day of the fourth week, Dan asked if he might do some of the activities that the other children did. Dan was present for the program every day thereafter for the following seven weeks.

Information From Interview and Questionnaire

When Dan was interviewed, he said that he had enjoyed physical education at school and liked to slide best. In reply to the question asking what he liked to do after school Dan said, "Nothing. I just get bawled at." When the investigator asked what getting "bawled at" meant, the subject said

it meant getting "fussed at" because you were bad. Dan said that he could not skate, but that he could ride a bicycle and often did so. When asked if he could swim, Dan said, "I can swim sometimes pretty good." The subject said that he never went to ball games, did not like to jump rope, although he knew how, and could not stand on his head or do cartwheels. According to Dan, his favorite game was to play with race cars.

Dan's mother completed the questionnaire and verified the answers that the subject had given in the interview. It was further reported that Dan enjoyed playing out of doors, watching television, and playing with toy cars. The mother indicated that the parents swam, bowled, and attended car races. Dan's mother stated that Dan had liked physical education in school but had not been able to get along with other children or take directions. Ball games and skating were activities which the mother thought that Dan would enjoy.

Initial Evaluation

The investigator attempted to administer the Lincoln-Oseretsky, but the subject refused to try any of the items. Dan's overt psycho-social behavior was clearly quite bad and he was considered by the staff to be the "terror" of the Day Hospital. The only positive aspects of the subject's behavior which the classroom teacher and investigator concurred on were that he did not cry easily and did not have stage fright in front of a group. The teacher further

observed that Dan did not prefer to be alone. The investigator believed that the subject's feelings were not easily hurt.

Movement Program

The subject's interests seemed to revolve around race cars. Dan spent his free time playing with cars, drew cars in art, attended races with his family, and filled his conversation with talk of cars and how fast they would to. The wheels on the skates seemed to catch Dan's interest. Although the subject did not know how to skate, he was eager to learn and the initial stages of the movement program were mostly skating sessions, with the subject making sounds as though he were a car. By the end of the program, Dan had learned to skate forward, turn, and glide in a squatting position with his arms around his knees.

With only slight persuasion, the investigator was able to get the subject to take part in ball handling activities. Dan appeared to be quite well coordinated and was adept at ball handling and striking patterns using a bat or tennis racket. The subject would quite often say that he was going to knock the ball down the investigator's throat. The investigator did not in any way attempt to restrain the subject from hitting the ball as hard as he wanted to. Dan seemed to be able to release much hostility by hitting the balls and would quite often make such comments to the objects he was striking as, "So you want to fight? Take

that!" or "How does that feel you. . ." Although Dan had the ability to throw and catch, in the early part of the program, he would hit the ball with his fist rather than catch the ball; or, throw the ball with all of his force into the wall rather than to the investigator. In dodgeball, the subject would also hit the ball with his fist rather than trying to dodge the ball. The wild throwing and hitting of the ball was usually accompanied by a high-pitched laugh. The investigator worked with Dan in playing dodgeball, and in a few weeks the subject was able to play the game with the investigator. By the end of the program, Dan could play dodgeball with other children for about ten minutes without sabotaging the game.

Dan took part in tumbling activities during the seventh and eighth week of the program. The subject learned a forward roll, backward roll, tripod and a head spring off of a rolled mat, with help. During the eighth week, Dan began to complain of headaches and dizziness while tumbling and discontinued the tumbling activities. There had been a change in the subject's medicine and the social worker believed that the headaches could have been caused by the new medicine.

Although Dan seemed to enjoy music, the investigator could never get him to keep time with his foot or clap his hands. The subject would often turn the record player to a faster speed so that he could hear the voices sing like "chipmunks." Dan would frequently let the music play while

he played dodgeball or hit the ball with a racket or bat. The subject once accidentally hit the record player with a ball and knocked it over without breaking the record. Dan was quite upset about hitting the record player. Thereafter he would come into the room and put the record player away before he would take part in any activities. The subject also found a crack in the handle of the tennis racket and did not want to use the racket because he was afraid that he might break it.

After a few weeks in the movement program, the subject would often say, "thank you" and "yes ma'am" to the investigator. He became quite affectionate and would often playfully put his arms around the investigator, but he was frequently rough in his manner. Dan would compliment the investigator on her clothes and hair style. The subject did not steal from the investigator though he had many opportunities and often stole from his parents.

One day Dan was particularly bad in art class, using profane language, trying to turn over tables, and scratching and hitting teachers who tried to restrain him. When it was time for his movement program, the art teacher would not allow Dan to go with the investigator because of his bad conduct. The teacher believed that withholding the movement program was the best way to punish Dan because it was the part of the program at the Day Hospital that Dan enjoyed most. The investigator went to the social worker in charge of the Day Hospital for Children and got a statement that

no child was to be punished by withholding the movement program. When the investigator returned, Dan was in a miserable huddle in the corner of the art room. Although it took about ten minutes to get over his depression, the subject seemed to have completely forgotten the incident by the end of the program. It was further noted that no matter how bad Dan's behavior was before he came for the movement program, his behavior was never extremely bad during the movement program. The subject was usually cooperative even though he refused to take part in some activities. However, he was never vicious as he sometimes was in other classes.

After a rain, Dan would usually ask the investigator if the lightning had frightened her. The subject admitted that he was afraid of lightning although he never admitted being afraid of anything else. Dan said that Jesus made lightning to kill bad people. Dan was always eager to admit that he was bad.

The scope of the program was rather limited because of Dan's hyperactivity and inability to take directions. However, the subject did respond well to the activities in which he took part. The investigator never insisted that Dan perform an activity and the subject was continually complimented and assured by the investigator that he was not bad.

Final Evaluation

Although the investigator had not been able to test the subject at the beginning of the program, the subject was tested on the Lincoln-Oseretsky at the end of the program. The investigator felt that she was able to test Dan because there was a better relationship between the subject and investigator and the subject was highly motivated by the stars to be placed on his chart and the candy which was given for each item attempted. The investigator was shocked to find that in spite of the subject's apparent good coordination, Dan's score of 44 fell below any percentiles listed for nine-year-old males. The subject was not able to do any of the items which required much concentration and also had much trouble with balance items. As with all subjects, the investigator did not let Dan know when he was unsuccessful on items. Dan seemed completely unaware that he was not doing well and frequently would rather proudly announce, "That ain't so bad is it?"

Overt psycho-social behavior, as rated by the teacher, was essentially the same, with negative traits still remaining, but generally to a lesser degree. The teacher, in a final statement indicated that Dan still was in need of much more improvement, but there had been some definite signs of improvement.

The investigator also found the same behavior problems of the subject to be present, but in a much lesser degree. There was a considerable decrease in the use of

foul language while in the movement program and improvement in the ability of the subject to take directions. There was also a very striking contrast in the overt psycho-social behavior of the subject as his attitude changed from hate toward the investigator to affection for the investigator.

In Dan's final meeting with the psychiatrist he was found to be rational in speech and thought processes, but irritable. The mother had reported some slight improvement in Dan's behavior, although he still had periodic outbursts. According to the psychiatrist, the subject seemed to have formed some close attachments to staff members. Despite the psychiatrist's confidence that Dan had benefited appreciably from the summer program, it was the psychiatrist's opinion that the parents should consider placement of the subject in an appropriate institution.

In conclusion, it was found that Dan's motor ability was extremely low, as measured by the Lincoln-Oseretsky. However, the subject was able to learn specific physical activities and presented an outward appearance of being well coordinated. There was a dramatic improvement in the overt psycho-social behavior of the subject; although, his behavior continued to be unacceptable.

CASE E

Background Information

Eric, an eight-year-old boy, was born when his mother was in her late forties. The mother had two grown sons by a

previous marriage and one daughter of high school age who was Eric's natural sister. The mother and father had experienced much difficulty in their marriage. A separation which had been planned was canceled when the mother found that she was expecting Eric. Pregnancy was unwanted, the mother had toxemia, and delivery followed a long, difficult labor period. The mother never really adjusted to the thought of having a baby at her age.

Eric had a relatively normal first two months, but thereafter was ill with upper respiratory tract infections and ear infections. The subject was never really alert or lively; he ate poorly and developed slowly. According to the parents, Eric was not able to sit up until he was almost three and did not walk until much later. Because the parents felt sorry for him, they did not discipline Eric as he grew up and allowed him to do many things that they really felt he should not do.

At eight years of age, the subject still slept with the parents, did not bathe or dress himself, and on occasion was still given a baby bottle when he requested it. Eric was reportedly very particular about what he ate and the parents ground all of his food up in a blender because they believed he was incapable of chewing his food.

Eric was referred to the Mental Health Center by the elementary school where he had unsuccessfully completed a second year in the first grade. The subject had been hyperactive in school, would not listen to the teacher, and was

disruptive in the classroom.

The parents indicated that Eric's problems included a speech impediment, a nervous condition, a muscle disorder which the parents believed to have been present since birth, and "silly" behavior.

The psychological tests indicated that the subject had an intelligence quotient of 75, with Eric's mental age being estimated as five years and three months. The subject's hearing was tested and was believed to be normal.

The psychiatric evaluation, rather than yielding a diagnostic impression, contained a suggestion that Eric be referred for a neurological evaluation and placed in the summer program for observation.

The neurological evaluation could not be scheduled until the sixth week of the movement program. The neurologist found Eric to be predominately left handed, but the subject did change hands occasionally while writing. Eric was able to do heel and toe walking without much difficulty and could hop on either foot. (The subject could not or would not perform these two items for the investigator at the beginning of the movement program and had been working on these and other items.) The neurologist believed that the subject showed a mild awkwardness, but no other definite neurological abnormalities. No substantiation of the muscle disorder reported by the parents was made by the neurologist. The diagnosis included the possibility of mild cerebral dysfunction secondary to the fact that the mother was in her

late forties and had hypertension during the pregnancy. It was concluded that a good deal of Eric's difficulty was emotional.

Information From Interview and Questionnaire

The subject came willingly for the interview. When asked if he had enjoyed physical education in school, Eric mumbled an answer which could not be understood. Although the subject was later asked the same question, he never gave an understandable answer and the investigator was not sure that the subject knew what physical education was. The subject stated that he liked to play out of doors in his free time. Eric indicated that he could not skate, swim, jump rope, or stand on his head, although he said that he could ride a bicycle. (The parents indicated in the questionnaire that Eric could only ride a bicycle which had training wheels.) Though the subject indicated that he had never attended a ball game, Eric said that "playing ball" was his favorite game.

The questionnaire, completed by Eric's mother, substantiated the subject's answers given during the interview. Eric's mother stated that the subject had not learned to ride a bicycle with training wheels until he was eight years old and only occasionally rode his bicycle. Playing out of doors was Eric's favorite pastime outside of school, according to the mother. The mother indicated that the parents took part in no activities. As far as Eric's mother knew, the subject

had never expressed an opinion concerning physical education at school. The mother felt that Eric would be interested in ball games, skating, and possibly tumbling.

Initial Evaluation

The subject was unable to perform any of the items of the Lincoln-Oseretsky Motor Development Scale. There was some question in the investigator's mind as to the amount of effort exhibited by the subject. However, the investigator was confident that the subject had a great deficit in motor development.

The classroom teacher, who observed Eric in a classroom situation with other children, found that Eric was not as much of a discipline problem as most of the other disturbed children. For the most part, Eric was submissive, but immature and silly. The only serious problem in behavior noted by the classroom teacher was that Eric was often nervous and excited.

The investigator, who observed Eric mostly on an individual basis, found more serious problems in the overt psycho-social behavior of the subject than did the classroom teacher. The items observed by the investigator included: (1) daydreams and "mind" tends to wander; (2) tends to be on the go and can not relax; (3) nervous and excited about things; (4) is not very tactful with others; (5) tends to be a "show off" before groups; and (6) has difficulty finding things to do with self.

Movement Program

The subject, who was present forty-one of fifty days, was extremely immature in his behavior throughout the movement program and would often curl up on the tumbling mat as though he were a baby and ask to take a nap. (The subject always had deep circles under his eyes and it was believed that he was allowed by his parents to stay up as late at night as he wanted.)

Eric's favorite phrases were, "goo goo man," and "doo doo man" and he would sometimes refer to the investigator and other female staff members as "mama." Because the subject's feet were so small, the investigator taped his shoes into the skates and Eric always insisted in calling the tape "snot." When the subject would take his shoes and socks off to tumble, he would quite often become preoccupied examining his toes. The investigator's assistant tried to teach the subject to tie his shoes and the subject was learning although he never really became proficient.

The subject would become mesmerized by films which were shown at the Day Hospital and was quite content to watch the same film over and over. If the staff did not keep a close check on Eric, he would stay in the film room rather than move to his other classes. The subject was sometimes reluctant to come to the movement program when he knew there was a film being shown.

Eric was probably the most poorly coordinated and weakest of all of the young subjects in the study. Eric was

hyperactive and often in the early weeks of the program would not follow directions. It took Eric a week to learn to jump rope with the investigator turning the rope and trying to get the rope under him when he jumped. The subject's best record for the entire summer program was sixty times without missing. He usually averaged about thirty times toward the end of the program and eventually learned to run in and out of the rope.

The subject learned to do sit ups and could do three by the end of the summer. Eric learned forward and backward rolls which were accomplished with poor form. The subject enjoyed standing on his head against the wall and said that he liked to be upside down. Eric also attempted other conditioning exercises, stunts, and animal imitations.

Eric learned to skate although he appeared rather uncoordinated in his movements. The subject's ability to bat and handle balls improved. The quality of his performance in any area was dependent on his ability to concentrate on any given day. The subject learned to walk forward and backward on the four-inch balance beam but could never balance on the tilt board. Eric's rhythm was surprisingly good in relation to his other inadequacies.

During a staff meeting, it was disclosed that Eric would not sit near his parents in the waiting room and pretended not to know them. The subject would cling to staff members in the presence of his parents. This action was interpreted by the psychiatrist as a possibly healthy sign

of independence from parents who were smothering the subject with love and attempting to keep him a baby. The staff meeting resulted in an agreement on the need for a more structured setting for the subject. During the sixth week of the program the investigator began to require more of the subject and made him adhere to stricter discipline. Thereafter, on days when the subject did not want to come to the movement program, the investigator dragged him when necessary. The subject responded well and began to show some affection for the investigator even though he had never done so when the investigator was more permissive.

Once when the subject decided to break a piece of equipment, after repeatedly being told not to do so, the investigator spanked him once lightly on the leg with her hand. Eric was quite shocked.

When the subject would refuse to take part in any activities in the movement program, the investigator would explain to Eric that he would not be allowed to leave until he made an attempt to perform some of the activities. The subject, realizing that he had little choice, would then usually focus his attention on a given activity and was frequently successful. The investigator praised Eric for his success and Eric seemed to take great pride in his accomplishments.

In the last week of the program, two of the male staff members put two tumbling mats together and "took on" all of the young male students in a wrestling match during a

game period. It was interesting to note that Eric wrestled the entire time with the other children and the staff members and was one of the last of the students to tire.

Toward the end of the program Eric related to the investigator that he wanted to break people's heads off. When the investigator stated that she did not really think Eric would want to break people's heads off, the subject assured the investigator that when he grew to be a man that he would break people's heads off.

Final Evaluation

On the re-test of the Lincoln-Oseretsky, Eric was motivated by the stars to be placed on his chart, but he was uninterested in the candy because he had never eaten candy that had to be chewed. The subject scored 35 points, which fell below the norms listed for eight-year-old males; but, was an improvement from his score of zero at the beginning of the program.

The Child Behavior Rating Scale completed by the classroom teacher and the investigator indicated that the same problems noted at the beginning of the program had remained problems, but to a slightly greater degree. The subject's overall behavior in school became more aggressive. By the end of the summer Eric often refused to do his school work. There had been no overt hostility present at the beginning of the summer; rather, he was observed as being just a hyperactive, silly young child. During a party held the last day

of the program, Eric was observed hitting another child with his fist. The investigator had never before witnessed any hostile actions by the subject against the other children in the Day Hospital.

There was no psychiatric re-evaluation of Eric at the end of the summer program. The neurologist's conclusion of possible mild cerebral dysfunction, together with the staff's observation of distractability and hyperactivity resulted in a recommendation that Eric attend a class for brain damaged children.

In conclusion, the subject improved in motor development and certain gross motor skills while becoming slightly worse in overt psycho-social behavior.

CASE F

Background Information

Frank, a seven-year-old male, lived in an apartment house with his divorced mother who was in her late twenties and his four-year-old brother.

When Frank was quite young, his father spent very little time with him although the mother believed that the father was interested in his son. Because he held a job which required much traveling, the subject's father was away from home quite often. Frank was frequently promised gifts by the father who assured his son that the gifts would arrive through the mail. Frank would wait anxiously for the gifts which never came. The mother and father were divorced

when Frank was three or four years old. At the time of this study, the whereabouts of the father were unknown.

Frank's development was described as normal except for severe stuttering which was present before he began school. The subject continued to stutter only slightly after entering school. Because the subject's mother worked full time, Frank and his brother spent much of their time with their maternal grandmother and a young aunt. The maternal grandfather was dead and there were only women in Frank's life. The mother felt that the grandmother was too lenient with Frank while the mother described herself as a perfectionist who was possibly too strict with her children.

Six months after this study, the subject was referred to the Mental Health Center because of behavior problems and poor achievement in school. Frank frequently was inattentive in school and did not finish his assignments. The subject was reportedly doing worse in the second grade than he had in the first grade. The teacher described Frank as hyperactive and hard to discipline.

When Frank was quite young he was easily angered and had temper tantrums. However, at the time of the subject's referral to the Mental Health Center, the mother reported that if the subject ever got angry he did not show his anger. At home Frank was hyperactive and he was still only when he was watching a program such as Tarzan on television at which time he became so engrossed that he would not hear his mother if she spoke to him.

The psychologist reported that Frank had a full scale I.Q. score of 115. The subject showed a relatively poor perceptual-motor functioning on psychological tests and evidenced some sex role confusion. Frank, at the time of the evaluation, blamed his mother for the divorce and resented pressures his mother was placing on him to do better in school. The psychologist believed the subject to be an anxious and uncertain child with a very low self-esteem and strong guilt feelings toward his mother. Frank had trouble expressing his feelings for his mother, even anger, and had a tendency to smile all of the time.

The psychiatric evaluation was conducted two months before the summer session began. The psychiatrist reported that the subject was quite hyperactive and could hardly sit still for his interview. Frank's associations were quite loose and he jumped from one topic to another. Throughout the interview, he avoided talking about his mother because he said that she would not like him to talk about her. The subject said that his mother never believed anything that he told her and that she whipped him quite often which felt like "being hit with a bone in the head."

Frank told the psychiatrist that he heard mumbling voices coming out of the ground. The subject said that he heard the voices when he was riding his bicycle or when he was alone and it was quiet. Frank stated that he had tried running away from the voices, stomping them into the ground. At one time he dug into the ground to find what was causing

the voices, but only found "a bunch of worms." Frank asked the psychiatrist if a snake eating rats could have made the sound that he heard.

The subject was referred to the summer session of the Day Hospital for Children for five days each week. Frank was absent twenty-four of the fifty days during the summer session. He did not begin the program until the third week, was periodically absent nine days during the following seven weeks, then, without notice, failed to appear during the last week of the program.

Information From Interview and Questionnaire

Frank came willingly with the investigator for the interview. When asked if he had liked physical education the subject implied that he had not had an organized physical education program but had been allowed free time to play, which he said that he had not liked. Frank said that in the afternoons after school he enjoyed going fishing without a pole and catching fish with his hands, cooking them himself, and eating the fish. The subject stated that he could not skate but that he could ride a bicycle but did not like to because he needed a motor on his bike. According to Frank, he could swim, though not well. The subject reported that he did not go to ball games because he did not have enough money and did not know where the ball games were. Frank indicated that he always missed on the third time when he tried to jump rope and that he also could not stand on his head or do

a cartwheel. The subject said that his favorite game was racing his turtle which was so large that it could step over all of the other turtles. Frank volunteered that his turtle had gone away, but he thought it might come back another time.

Frank's mother completed the questionnaire and indicated that the subject had learned to skate when he was only four years old. The subject had stated that he could swim a little but his mother indicated that he could not swim. Frank had told the investigator that he did not like physical education at school while the mother disclosed that she believed Frank had liked physical education at school. The subject's mother generally confirmed other statements that Frank had made and indicated that Frank might enjoy taking part in ball games, skating and tumbling.

Initial Evaluation

The subject was cooperative and talkative during the early stages of the Lincoln-Oseretsky Motor Development Scale. Toward the end of the test, Frank became tired and refused to try some of the difficult items, which were similar in nature to earlier items performed, insisting that he had already done the items. The subject's score on the initial testing was 41. A score of 40 falls at the 17th percentile for seven-year-old males. It was probable that the subject could have done slightly better on the test.

The investigator noted the only serious problem in

the overt psycho-social behavior of the subject to be that he was often daydreaming and his "mind" tended to wander, while the classroom teacher found many more serious problems in the behavior of the subject, which included: (1) day-dreams and "mind" tends to wander; (2) tends to be on the go and can't relax; (3) is nervous and excited about things; (4) is aggressive and hostile toward others; and (5) gets into physical fights with others. In addition, the class-room teacher noticed that Frank would from time to time lapse into "baby talk."

Movement Program

Occasionally Frank exhibited a lack of enthusiasm for the movement program, particularly at the beginning. The subject's enthusiasm increased when he learned to skate, jump rope, and became proficient in striking at balls with a tennis racket. Frank would often refuse to participate in certain activities although he was never hostile or objection-able in his manner.

The subject frequently told the investigator wild tales about a ghost with a sword through his chest who lived in the subject's barn and rode a white horse. Frank reported that on days that he did not come to the Day Hospital that he got up at four in the morning and went over a waterfall in his boat.

Although the subject and his mother indicated that Frank could skate, he could only balance for a few seconds

on the skates and was not able to roll at all. Frank was very independent in learning to skate and did not want any assistance in maintaining his balance. Although he fell quite hard several times, he never cried or showed any fear of falling. By the end of the program, the subject learned to skate but never developed a smooth gait.

On the first attempt, the subject could only jump rope one time with the investigator turning the rope. Frank would jump much too high and fall down rather than holding his balance. At the end of one week's practice, Frank could jump three times without missing. As the subject improved in his ability to jump, he became so excited that he would laugh uncontrollably as he jumped and often would miss because he was laughing so hard. By the eighth and ninth week of the program, Frank was consistently able to jump one hundred times without missing.

Frank's favorite activity was hitting fleece balls with a tennis racket. The subject became quite proficient and related that he had bought a badminton set and played at home. In addition to jumping rope, skating, and hitting fleece balls, the subject learned a few basic tumbling stunts, and conditioning exercises. Frank improved in ball handling and enjoyed playing dodgeball.

The subject began to become more enthusiastic as the program progressed, but occasionally still refused to take part in certain activities, though he never exhibited aggressive or hostile behavior.

During the sixth week of the summer session, Frank ran away from school. The subject was in a play therapy session with other children on the first floor of the building and managed to get out of the building and a block away before a male member of the staff caught him and brought him back. The subject never explained what upset him or why he ran away.

Final Evaluation

At the close of the summer session, the investigator found little change in the overt psycho-social behavior of the subject. In addition to daydreaming, Frank seemed unable to carry on a sustained conversation without including his fantasies.

The teacher observed that Frank continued to have all of the serious behavior problems indicated at the beginning of the program, and by the end of the session also evidenced the following problems: (1) giggles when nothing is funny; (2) talks dirty, swears, or uses foul words; (3) has trouble controlling temper; (4) behavior goes in cycles of good and bad; (5) is a poor sport and a poor loser; (6) plays mean tricks on others; and (7) tends to be very selfish and self-centered.

Without any notice from his family, the subject left the program during the ninth week. There were unsuccessful attempts to find out where Frank had gone or if he would return to the program. The subject was not present to be

re-tested on the Lincoln-Oseretsky Motor Development Scale or re-evaluated by the psychiatrist. However, the subject had been seen by a psychiatrist at the beginning of the ninth week of the program. The psychiatrist revealed that Frank had become openly aggressive and assertive and had lost the frozen smiling expression. Frank told the psychiatrist that he was having trouble sleeping and that his mother blamed him for everything that went wrong at home.

In conclusion, the subject's overt psycho-social behavior, outside of the movement program, became worse, but there was little change in the subject's overt psycho-social behavior during the movement program. The subject improved in certain gross motor skills. No conclusion could be drawn concerning the improvement of motor development because there was no re-test using the Lincoln-Oseretsky Motor Development Scale.

CASE G

Background Information

George, age eight, was born to parents who were both in their second marriage. The subject had one natural sister who was two years older than he. A lower middle-class income was provided for the family by the forty-eight-year-old father who worked during the day and his forty-three-year-old wife who worked at night and slept during the day.

In school, George refused to pay attention and had learning problems. George's teacher suggested that the

mother have him evaluated. The subsequent evaluation resulted in referral to the Mental Health Center.

Both parents were present for the interview at the Mental Health Center which took place a year and a half before this study began. No developmental history or significant incidents concerning George's life could be recalled by the mother who disclosed that George had been raised by a maid. The mother even had considerable difficulty in recalling the birth dates of her two children.

According to the mother, George was disobedient, destructive, hyperactive, stubborn, had bad dreams and stomach pain, set fires, overacted to criticism, screamed, and yelled. The father stated that he believed that the mother spoiled George and was responsible for his behavior. The social worker was unable to gather additional information because the parents spent considerable time during the interview arguing with each other about money and other family problems.

The psychological evaluation revealed a full scale I.Q. score of 93, which was considered to be definitely below George's potential which was estimated to be between 100 and 110. Perceptual organization was significantly high and the psychological conclusions were that George was a physically and intellectually normal boy who was showing pervasive immaturity.

The psychiatrist believed that the subject exhibited signs of neglect, depression, and fear. George related that he became angry because his father never took time to play

with him. The subject confided that there was much fussing and fighting at home, and that his father sometimes hit his mother. The diagnosis was adjustment reaction of childhood characterized by neglect of emotional interplay with significant adults, plus depression. It was suggested that the subject might benefit from identification with a significant adult, in addition to letting go of some of his anger and depressed feelings.

The mother was placed in a group therapy session with adults and George became involved in a play therapy group. Because George continued to exhibit behavioral problems following the termination of the play therapy, he was referred to the Day Hospital for Children for further observation.

George was not immediately selected to become a subject for this study because he attended the Day Hospital only three days a week and there was some question as to the regularity of his attendance since the parents had indicated that George's transportation to the Mental Health Center might be a problem.

At the beginning of the summer session, George was very depressed and was able to gain only limited success with his school work and other activities. Although the subject did not appear enthusiastic about the other activities at the Day Hospital, he continually asked the investigator when his turn would come to go into the play room with the investigator. The investigator promised to

spend some time with George as she did with some of the other children who were not selected for the study.

On the first day of the third week, George came into the play room while the investigator was working with a subject who was easily overstimulated. When the investigator asked George to leave he refused. The attendant was called to take George from the room. George attempted to hold on to the investigator and the door facing as he was carried screaming and crying from the room.

The next day that George came to the Day Hospital, the investigator permitted him to come into the play room after she had completed the movement sessions with the other children. George, who was quite muscular, immediately got on the tilt board and was able to balance. He was able to walk the balance beam forwards, backwards, and with his eyes closed. With a rather professional looking overhand serve, George hit fleece balls with a small tennis racket. When asked if he could tumble George responded by performing on the mats a forward and backward roll which he said that he had learned by himself. The investigator helped George to do a kip up, which he was able to perform by himself by the third try. After several trials, George was able to perform a head spring with only slight assistance. The investigator called in some of the staff members to witness George's outstanding success.

When leaving the school that day George remarked to his teacher that he loved the Day Hospital and wished that

he could come every day rather than only three days a week.

The investigator decided to include George in the study because he represented such a contrast to the other boys and brought into play a different slant on the use of movement with emotionally disturbed children.

Information From Interview and Questionnaire

When interviewed, George stated that he liked physical education at school. Playing cowboys and Indians and flying a frisby were the activities in which the subject indicated that he liked to take part after school. George said that he could not skate or swim but he could ride a bicycle and often rode. Although the subject stated that he could jump rope, he was not able to jump when the investigator turned the rope for him. George said that he could stand on his head and do cartwheels and his favorite game was playing lost in space.

The subject's mother completed the questionnaire and substantiated the answers given by George during the interview. While the parents took part in no activities, ball games, skating, tumbling and conditioning exercises were listed by the mother as activities in which she believed that the subject would be interested.

Initial Evaluation

The classroom teacher, in observing George's overt psycho-social behavior as listed on the Child Behavior Rating Scale found his most serious problems to be: (1)

feelings are easily hurt; (2) appears to feel unwanted or disliked; (3) seems to have little self confidence; (4) sulks when unable to get own way; and (5) seems unhappy or depressed. According to the teacher, George was hyperactive and uncooperative in the classroom.

The most serious behavior problems of the subject, as noted by the investigator, included: (1) giggles when nothing is funny; (2) tends to be on the go and can't relax; (3) is very nervous and excited about things; and (4) has difficulty finding things to do with self.

There seemed to be a complete difference in the behavior of the subject while in the classroom as opposed to his behavior in the movement program. In the classroom the subject appeared depressed and unhappy but was elated and hyperactive in the movement program.

The subject was extremely hyperactive and refused to do more than the first two items of the Lincoln-Oseretsky Motor Development Scale.

Movement Program

George continued to be depressed while in the classroom and often had temper tantrums. Although the subject was allowed to stay about thirty minutes each day for the movement program, early in the program he frequently cried or complained when it was time to leave.

The subject very quickly learned to jump rope and within six sessions averaged jumping over one hundred times

without missing. George would often laugh in a nervous and uncontrolled manner as he jumped. In jump rope, as in other activities, the subject frequently pushed himself to exhaustion.

The subject took part in many activities. George learned to skate, although this was not his most successful activity. In addition, George enjoyed dribbling large rubber balls, throwing the balls against the wall, hitting fleece balls with a tennis racket, walking balance beams, and balancing on a tilt board. George also enjoyed doing many repetitions of conditioning exercises but would continue until exhaustion unless the investigator had him stop. Dodgeball was another activity in which the subject laughed out loud as he participated.

The subject was probably most successful in tumbling activities. However, he did not progress as well as might have been expected because of his hyperactivity and inability to take directions. George was able to do forward and backward rolls, head stands, and cartwheels when he began the program. The subject learned a backbend, kip up and head spring with help. George was able to stand on his head, balancing against the wall, and press into a hand stand. Although the investigator had cautioned the subject against doing so, George would run and dive straight ahead on the mat and land on his stomach, and would attempt a somersault in the air even though he always landed on his back.

On one occasion, George was becoming so depressed in

the classroom that the teacher talked to a psychiatrist about George's depression. The psychiatrist suggested that George spend more time in the movement program where he was achieving wide success and less time in the classroom where he was experiencing very limited success.

After thirteen movement sessions, the subject broke his arm while playing at home. George was very proud of the cast on his arm and the attention that he got immediately following the accident. In the days which followed the subject began to realize that he could no longer take part in the movement program and became depressed. He had another temper tantrum in the play room where he wanted to remain rather than to go to class. After George broke his arm, the investigator played quiet games with the subject and allowed him to toss pennies and bean bags into a box, dribble balls with one hand, and hit fleece balls with a tennis racket. Because he became so depressed after breaking his arm, George also stayed as a helper to the investigator.

Throughout the movement program George was extremely affectionate and seemed to enjoy the attention the investigator gave him.

Final Evaluation

The subject was unable to be re-tested on the Lincoln-Oseretsky because of his broken arm which remained in a cast.

Overt psycho-social behavior of the subject, as noted by the classroom teacher, was worse by the end of the program,

although the subject's behavior had been slightly improved before the subject broke his arm. In addition to all of the serious problems in behavior that the teacher had noted at the beginning of the program, other serious problems noted at the end of the program included: (1) cries with little or no reason; (2) giggles when nothing is funny; (3) makes alibis or excuses for mistakes; (4) tends to be on the go and can not relax; (5) is nervous and excited about things; (6) is a poor sport and a poor loser; (7) lacks status and feels insecure with friends; and (8) tries to be a "show off" among friends.

The investigator noted an overall change for the better in the behavior of the subject while he was able to participate successfully in the movement program. The investigator found all of the problems in behavior noted at the beginning of the program to be present at the close of the program, but to a lesser degree.

The psychiatrist reported that, at the time of the re-evaluation, the subject was hyperactive, restless, distractible, preoccupied and unable to give straight answers. The subject conveyed that he had severe difficulties in reading and concentrating. According to the psychiatrist, the staff had concluded that George was hyperactive and at times impulse ridden. However, he was able to channel much of this into athletic activities in which he was an outstanding performer. The psychiatric re-evaluation resulted in a diagnosis of behavioral disturbance of childhood, which was

amore serious disturbance than the previous diagnosis of adjustment reaction of childhood. Some of the manifestations of the behavioral disturbance of childhood were severe learning inhibition, high anxiety, and poor control of hostility.

In conclusion, it was found that the subject improved in certain gross motor skills. There was an overall decline in the subject's overt psycho-social behavior outside of the movement program, although there had been a slight improvement before the subject broke his arm. The subject was unwilling to be tested in the initial test of the Lincoln-Oseretsky, and unable to be re-tested. However, the investigator surmised that the subject possessed above-average motor development.

CASE H

Background Information

Hal was a fifteen-year-old male who had one brother eleven years old. The subject had developed normally, although he was late in learning to dress himself and tie his shoes. The mother was described as an overly protective, neurotic woman who babied her eldest son while he was young and continued to keep close controls on Hal as he grew older.

When he began school, Hal's first grade teacher noted that the subject appeared weak and poorly coordinated. As he was growing up, his mother continually reminded Hal that he was awkward and clumsy.

When Hal was seven years old, his father, with whom he

had been very close, died. The minister of the church which Hal's family attended spent time with the subject and the minister was believed to have served as a father image.

The minister moved to another city while the subject was in the seventh grade. During the following summer, Hal sustained a gun shot wound in the abdomen which was apparently self-inflicted. The subject lost a large quantity of blood and remained in critical condition for weeks. Hal refused to see a psychiatrist immediately following the incident. Later, the subject voluntarily asked to see a psychiatrist. The diagnosis by a psychiatrist at the Mental Health Center was schizophrenic reaction. Hal was subsequently hospitalized for psychiatric treatment and released after six months. Four months after the discharge the subject again attempted to commit suicide by slashing his wrists. Following the second attempt, the subject once again was referred to the Mental Health Center, where, in addition to receiving individual therapy, Hal became a student in the Day Hospital for Children during the regular school year.

The family reportedly existed on extremely limited funds. Hal's mother refused to come to the Mental Health Center for any kind of treatment and stated that she believed that neither she nor Hal needed any help. According to the mother, the younger brother appeared quite well adjusted and was a very good student while Hal had always been a rather weak student.

It was reported that Hal got along well with adults,

but not with his own age group. Hal was not allowed by his mother to date or even take girls to church socials. The subject was preoccupied with religion and sexual adjustment as an adolescent. In an interview with the social worker, Hal declined to discuss his mother or details of his suicide attempts although he did give two reasons for his attempts. The reasons given by Hal were an inability to perform well in sports activities and a lack of friends.

The psychological evaluation of Hal, when he was in the eighth grade, revealed that the subject's intellectual efficiency appeared impaired to some degree, although current functioning somewhat approached the average range. Hal read at a sixth grade ninth month level, spelled at a sixth grade eighth month level, but was only at a third grade ninth month level in arithmetic. Hal was reportedly easily frustrated, gave up after only minimal effort and evidenced impairment of visual-motor functioning.

When the subject completed the regular school year at the Day Hospital for Children, he continued on into the summer session without a psychiatric re-evaluation. Hal attended the summer program five days a week and was fairly constant in his attendance, being absent only seven of the fifty days.

Information From Interview and Questionnaire

The subject appeared on time for his interview with the investigator and was quite well mannered but obviously

shy and self conscious. When asked, the subject stated that he generally had not liked physical education, but he had liked track and some recreational games. Reading and watching television were pastimes in which Hal said he usually engaged when not in school. Hal disclosed that he could skate and ride a bicycle. (Hal's mother indicated in the questionnaire that Hal could not skate.) Jump rope and swimming were two activities which the subject stated that he had never learned. Hal indicated that he could not tumble and was afraid to try. The subject said that he enjoyed baseball games which he occasionally attended.

Hal was quite talkative, in a shy way, and stated that he did not know how much activity he would be able to take part in because of a previous injury. The subject also held one of his arms as though it were broken. The subject's social worker later indicated that Hal had no injuries which would affect his physical activities and that he had been holding his arm in a strange position for several months although there was nothing wrong with his arm.

During the interview, Hal described one of his worst experiences in public school as a game which was played inside the gymnasium on a rainy day. The name of the game was bombardment and the subject described his part in the game as being on one end of the gymnasium and having all of the other boys throwing balls at him as hard as they could. The investigator later came to the conclusion that the subject probably lacked the coordination to be able to defend

himself in such an activity.

Hal's mother completed the questionnaire and confirmed the subject's answers given during the interview except for his statement that he could skate. The mother did not select any of the activities on the check list as being of possible interest to her son. However, she did write in putt-putt golf.

Initial Evaluation

Throughout the Lincoln-Oseretsky test the subject was cooperative, yet lacked confidence and was embarrassed about his poor showing on the test. The subject's score of 51 was far below any norms listed for fourteen-year-old boys. (The norms only extended to fourteen years.) A score of 115 was at the 5th percentile for fourteen-year-old males.

Both the classroom teacher and investigator found the subject to be a shy boy who exhibited the following problems in overt psycho-social behavior: (1) seems to have little self confidence; (2) lacks status and feels insecure with friends; and tends to have "stage fright" before a group. Hal's classroom teacher, who had also taught Hal for several months during the regular session before this study began, observed additional problems in the subject's behavior which included: (1) seems unhappy or depressed; (2) feelings are easily hurt; (3) appears to feel unwanted or disliked; (4) is slovenly and unkept in appearance; (5) tends to be on the go and can not relax; (6) is nervous and excited about things;

(7) does things which later regrets having done; (8) has trouble making friends; (9) has trouble keeping friends; (10) is not very popular with boys own age; and (11) has difficulty finding things to do with self. In addition, the investigator believed that the subject preferred to be alone.

Movement Program

Hal was probably the most poorly coordinated and least physically fit of any of the older subjects. In the beginning of the program, the subject could not perform a sit up, could not get into position for a push up, could not bounce a ball off of a wall and catch it, could not dribble a ball or jump rope.

In the subject's movement program, which usually lasted about thirty minutes each day, conditioning exercises played a large part. Hal was quite interested in learning and practicing exercises which had been part of the program at the school he had previously attended, perhaps because he had never been able to perform the exercises properly.

In preparation for learning a situp, the subject practiced curling down. After a week's practice, Hal was able to curl down slowly without falling. By the end of the session, the subject's best record was fifteen sit ups. In the latter stages of the session, he usually averaged about ten sit ups. After four weeks, the subject learned to coordinate his arm and leg movements sufficiently to perform side straddle hops. The subject once did thirty-six repetitions

of this exercise correctly. Hal learned to perform squat thrusts, although he never learned to do a push up.

The subject learned in one week to jump a rope with the investigator turning it for him. It took about three weeks for him to become reasonably proficient in running in and out of the rope. Hal's best record was sixty-two consecutive jumps without missing which was quite an achievement because he tired so easily.

Another area of great difficulty for Hal was ball handling. Initially, if he was more than three feet from the wall, the subject was unable to throw a large rubber ball against the wall and catch it. Hal practiced diligently and was once able to retrieve the ball twenty-two times from the wall at a distance of eight feet from the wall. In addition, Hal practiced dribbling, with his best achievement for the session being thirty-three successive dribbles with one hand. The subject also improved in throwing and catching but his performance remained far from adequate. The subject did show enough interest in ball handling that he bought a large rubber ball similar to the one used in the movement program and practiced at home.

The investigator noticed that the subject seemed to have very poor eye muscle coordination. Hal improved in striking patterns. However, his performance remained quite inadequate and he had considerable trouble following the ball with his eyes. The subject was always quite self-conscious and the progress made in throwing, catching, and

striking patterns did not carry over into the softball games played with other subjects and the staff.

Hal was not able to clap his hands in time with any kind of music. The subject stated that he never listened to music as other high school students did and he was quite impressed with the music provided during the movement program. During the summer session, Hal bought a small portable radio which he said was purchased so that he could practice clapping his hands to music. The subject mentioned that he thought that he would like to learn to social dance. The investigator did not encourage the suggestion because she thought that his mother might object and there were no girls his age who were interested in learning to dance.

Hal's most notable success was in running. The subject could usually win races which he ran against the other subjects. The investigator believed that instruction in certain phases of track would have been very beneficial for this subject.

Although Hal generally exhibited a lack of confidence, he occasionally set what seemed to be unrealistically high goals and worked doggedly toward them until he succeeded. While in the regular session of the Day Hospital for Children, Hal had spent weeks learning to jump over a wand while holding the wand with both hands. Hal's social worker, who had met with the subject weekly for many months, confirmed Hal's tenacity in certain endeavors.

Final Evaluation

The subject did not want to be re-tested on the Lincoln-Oseretsky Motor Development Scale. He was convinced that he would not show any improvement. Even when the investigator attempted to encourage the subject by showing him his records which indicated improvement in many of the activities in which he had engaged, Hal refused to believe that he had improved saying that he could not remember doing that well or that his improvement was due to chance. The subject approached the test with a very negative attitude and earned a score of 47, which was four points below his score at the beginning of the program. Both the initial and final scores were far below any norms listed for teen-age boys.

The classroom teacher found Hal's overt psycho-social behavior to be slightly improved in the following areas: (1) seems unhappy or depressed; (2) feelings are easily hurt; (3) is very nervous and excited about things; (4) tends to have "stage fright" before a group; and (5) has difficulty finding things to do with self.

The investigator found the subject to be quite improved in: (1) prefers to be alone; (2) lacks status and feels insecure with friends, and slightly improved in (3) seems to have little self confidence.

There was no psychiatric re-evaluation of the subject. His therapy sessions were terminated, but he was to continue on in the Day Hospital for Children during the following

school year. No concrete statements were made concerning the status of the subject at the end of the summer session. However, the social worker felt that Hal had dealt successfully with some of his fears, fantasies and behaviors.

The investigator concluded that the subject improved slightly in overt psycho-social behavior. Substantial improvement was noted in certain gross motor skills. Nevertheless, Hal's skills remained quite inadequate. The subject scored slightly lower on motor development, as rated by the Lincoln-Oseretsky Motor Development Scale.

The investigator felt that the movement program would have been more successful for Hal if there had been a male teacher and that the subject would have benefited greatly by many activities which were unavailable because of limited facilities, space, and equipment.

CASE I

Background Information

Ike was a thirteen-year-old male who had recently been referred to the Mental Health Center. According to the mother, she had been severely ill during her pregnancy with Ike. In her fourth month of pregnancy she had surgery to remove a kidney stone. Near the time of delivery, the mother developed high blood pressure and kidney trouble and began to convulse.

For the first two years of his life, Ike was thin and chronically ill although he otherwise developed normally.

The family, which included the mother, father, three older sisters, and Ike, moved quite often, but lived predominantly in rural mountainous areas. According to the mother, Ike's father was peculiar, suspicious, and often resorted to physical violence. By the time the subject was five years old, his mother and father had separated.

The mother became an out-patient at a psychiatric hospital where she met her present husband who was also a patient. The marriage was apparently rather unstable and the stepfather had reportedly incurred a drinking problem.

Ike failed both the first and second grades and continued to evidence learning problems thereafter. Two years before this study began, Ike moved with his family from a rural area to the city where this study took place. The family reportedly existed on a very limited income.

The subject was referred to the Mental Health Center by the visiting teacher because of learning problems, hyperactivity, and an uncontrollable temper. The principal reported that Ike would physically lash out at teachers and children. When corrected, he would run home to his mother crying.

The subject was first seen at the Mental Health Center two months before this study began. Ike had been temporarily suspended from school because of his behavior and appeared very sad and depressed over the situation. He was placed on medication and returned to school. For a few weeks Ike did better in school, but was expelled for the remainder of the

year for picking up a rock during a fight and threatening to kill the student with whom he was fighting. The subject was to have been socially promoted to the sixth grade the following year.

The thirty-seven-year-old mother appeared unstable and cried often during her interview with the social worker. The fifty-eight-year-old stepfather was unwilling to come for an appointment and the mother revealed that there had been some conflict at home because the stepfather believed that Ike needed no special help.

The mother believed that Ike had sustained brain damage as a result of prenatal illness and that Ike was quite limited in intellectual ability. She thought that the subject should remain on medicine and be placed in a special class.

The psychological evaluations included one evaluation from another state which was completed when Ike was ten years old and another evaluation completed just prior to this study. The earlier evaluation found the subject to be of above-average intelligence, but in need of remedial academic programming. In addition, it was recommended that Ike be involved in some additional activities which would offer him a chance to experience social success and increase his diminished sense of self-worth and competence.

The most recent evaluation found Ike to be two to three years academically retarded while maintaining an I.Q. score of 109. There was no indication of difficulties in

visual perception and the neuro-psychological screening was essentially negative. It was the conclusion of the psychologist that Ike had been reinforced for quite some time in a very negative self-image and that his brightness and social competence had been overlooked or misjudged by his family.

The subject was pleasant and cooperative during his psychiatric evaluation. When asked if he had three wishes to be granted what they might be, the subject said that he would like: (1) to see his real father more often; (2) to have a lot of money so that he could buy a farm and a motor cycle; and (3) to become a cartoonist. The diagnostic impressions were developmental dyslexia and situation reaction of adolescence. The subject was referred to the Day Hospital for Children on a five-day-a-week basis for the summer session.

Information From Interview and Questionnaire

The subject was very talkative and outgoing during the interview with the investigator. Ike stated that he liked physical education and that tumbling and football were his favorite activities. According to the subject, playing outside with other children, climbing trees, playing football and playing baseball were his favorite pastimes while not in school. Ike reported that he could skate, ride a bicycle, swim and jump rope, but that he could not stand on his head or do a cartwheel. Although the subject stated that he had never been to any ball games, he thought that he would prefer

to play rather than to be a spectator. At the close of the interview, the investigator showed Ike the equipment for the program and Ike appeared very enthusiastic.

The questionnaire was completed by the subject's mother and revealed that her son had not learned to skate, ride a bicycle or swim until he was eleven years old. (Ike was eleven when he moved from the rural area to this city.) The parents took part in no activities except for occasional picnics. Ball handling, skating, and conditioning exercises were listed by the mother as activities in which she believed that her son might be interested.

Initial Evaluation

The subject was extremely enthusiastic and was determined to perform well on the Lincoln-Oseretsky Motor Development Scale. His score on the initial testing was 126, which lies between the 55th and 70th percentile for thirteen-year-old males.

According to the classroom teacher, at the beginning of the program, Ike exhibited no problems in overt psychosocial behavior, other than an extremely short attention span.

The investigator noted, at the beginning of the program, the following problems in Ike's behavior: (1) makes alibis or excuses for mistakes; (2) tends to be on the go and can not relax; (3) tries to be a "show-off" among friends; (4) has difficulty finding things to do with self;

(5) gets into physical fights with others; and (6) is a poor sport and a poor loser.

Movement Program

Ike was one of the most enthusiastic subjects in the study. He was absent only three of fifty days and usually remained in the movement program about twenty minutes each day. The subject appeared quite well coordinated but thin and weak. Ike evidenced a good sense of rhythm, performed well in ball handling activities, and appeared to have excellent balance. The subject did particularly well on the balance items of the Lincoln-Oseretsky Motor Development Scale and enjoyed creating stunts on the balance beams.

Ike spent much of his time with tumbling activities. The subject had previously learned a forward roll and during the movement program learned a backward roll, tripod, head stand, dive roll, cartwheel, and at times could do a kip up with help.

The subject engaged regularly in conditioning exercises and performed fairly well on all exercises except those requiring arm and shoulder strength. Although the subject did not learn to do a push up, he did improve from one to ten in the number of modified push ups.

The subject enjoyed playing ping-pong with staff members, but a game with his peers usually resulted in an altercation. While playing dodgeball, Ike would insist that he had not been hit by the ball when he obviously had. The

subject would quit running during a race if he was not winning. Ike's only friend was the fifteen-year-old subject, Hal, who treated Ike as a younger brother. The two subjects rode the buse to the Mental Health Center together and there seemed to be a sense of companionship and mutual respect between the two. However, Ike was unable to get along with any other teen-age boys in the program.

Initially, Ike did very well in the program. However after realizing that some of the subjects were making more progress in certain activities than he was, Ike would refuse to try at all in those areas.

The subject frequently got into fights at school and once ran away from school after a disagreement with a staff member. As he improved his skills, there seemed to be some slight improvement in the subject's sportsmanship while playing games.

The subject was extremely talented in art and brought drawings that he had made for the investigator and other staff members. On one occasion when the investigator complimented Ike on his work, the subject confided that evaluation tests that he had taken indicated that he was "above average."

Final Evaluation

Ike was cooperative when re-tested on the Lincoln-Oseretsky Motor Development Scale, although he lacked the abundant enthusiasm which had been present in the initial testing. Ike's score on the test was 113, which lies between the 28th and 41st percentile for thirteen-year-old males.

This represented a thirteen-point loss from the initial score of 126.

The classroom teacher, who initially had found no serious problems in Ike's overt behavior, other than a short attention span, indicated the following problems in overt psycho-social behavior at the end of the session: (1) feelings are easily hurt; (2) appears to feel unwanted or disliked; (3) seems to have little self confidence; (4) giggles when nothing is funny; (5) makes alibis or excuses for mistakes; (6) has trouble controlling temper; (7) is not very tactful with others; (8) behavior goes in cycles of good and bad; (9) gets into physical fights with others; (10) is a poor sport and a poor loser; and (11) tries to be a "show-off" among friends.

The investigator found the same problems which were present in Ike's behavior at the beginning of the program to be present at the end of the program, but to a lesser degree. There seemed to be a slight improvement in the subject's ability to get along with other subjects while in group activity associated with the movement program.

The subject confided to the psychiatrist, during the re-evaluation, that he had enjoyed the summer session of the Day Hospital and hoped to be allowed to return for the regular school session at the Day Hospital for Children rather than going back to public school. The subject apparently saw himself as a skinny, puny boy. As far as the psychiatrist could tell, Ike was not particularly physically retarded,

though small for his age. Ike stated that he felt weak at times and cried several times during the hour, which seemed to reflect feelings of helplessness, inadequacy, insecurity, and low self-esteem.

The diagnosis was behavioral disturbance of childhood, which was manifested by free-floating anxiety, and excessive fearfulness, feelings of insecurity, chronic depression, and excessive learning disability when in less than optimal conditions. Although the subject had a history of maturational lag, the psychiatrist believed that with sympathetic and patient teachers, academic performance should improve greatly. On the recommendation of the psychiatrist, Ike remained in the school at the Mental Health Center for the regular school session which began the following fall.

It was concluded that the subject improved somewhat in the learning of certain gross motor skills. There appeared to be some slight improvement in overt psycho-social behavior while in the movement program even though there was a worsening of overt psycho-social behavior in the classroom. According to the Lincoln-Oseretsky Motor Development Scale, there was a decline in motor development.

The investigator believed that the subject would have enjoyed and benefited from many activities not available at the Mental Health Center, particularly a body-building type of program directed by a male.

CASE J

Background Information

Jack, a fourteen-year-old male was a child of a broken home. According to the mother, Jack's father was a chronic alcoholic. Throughout their lives, Jack and his two older sisters were periodically without a father because of repeated separations between the parents.

The subject was born with no reported problems during his mother's pregnancy or at the time of his birth, although the mother reported that she had been extremely upset and described her life with Jack's father as one of turmoil and hell. The parents were separated from the time that Jack was one month old until he was eight months old. The father then returned for five months before the parents were again separated. This pattern of separations continued as Jack grew older.

Jack's development was described as slow, though not unusually so. The subject had trouble getting along with children when he was quite young. Although he was only five at the time, and described as immature, the subject began school. The teacher reported that Jack was inattentive, did not finish his work, cried easily and was hypersensitive to correction. By the time the subject was in the second grade, his mother noticed that he was slow in learning and Jack was retained in that grade at the request of his mother. The subject began to stutter while in the second and third grades.

The subject was referred to the Mental Health Center four months before this study began by a public health nurse who knew of Jack's difficulties and of the family situation. At the time of referral, the parents had been separated for fourteen months and the mother held a very good job. The older sister was married and Jack's seventeen-year-old sister often acted as a substitute mother and reportedly was frequently "bossy." Jack was in a slow learner class at his school and was improving academically, but was teased and called stupid and retarded by other children.

The mother indicated, at the time of referral, that Jack was overly sensitive, had a short attention span, was nervous and had difficulty getting along with children his own age. The mother was described as verbal and obviously overcontrolling. She seemed to have a deep resentment for her husband and had trouble understanding her son who bore a striking resemblance to his father.

Until five months before this study began, when Jack's father had moved to another state, the father frequently spent week-ends with his son. Although the subject often wrote to his father after he moved, only occasionally did Jack hear from his father. During the fourteen months that the parents had been separated, the subject had appeared quite depressed and had many arguments at home. Jack often said, in referring to himself, "I am no good" and "I wish that I could kill myself." On one occasion, Jack even threw a knife at his sister.

When interviewed by the social worker, Jack disclosed that he wanted to be with his father. The subject resented his mother's dating and did not want anyone to take his father's place. According to Jack, his father had promised to come back for him as soon as he was settled and the subject seemed to be living for that day.

At the age of twelve, psychological examinations indicated that the subject had an I.Q. of 82 and was diagnosed as dull-normal in intelligence. His Bender drawings had shown some form-perception disturbance. The subject was re-evaluated just before this study began and indications were that the subject had an I.Q. of 100. In addition, the subject was reported to have a very good vocabulary. He appeared quite depressed and cried several times during his evaluation.

Jack's psychiatric evaluation, just prior to this study, revealed a diagnosis of adjustment reaction of early adolescence with depressive features. The degree of retardation, if any, was not determined. The behavior of the subject seemed to suggest organic cause, though this could not be substantiated. The subject was referred to the Day Hospital for Children on a five-day-a-week basis.

Information From Interview and Questionnaire

The subject's interview took place the first day of the fifth week of the summer session, which was the first day that the subject came to the Day Hospital for Children.

The subject was referred to the summer session in the late spring but was unable to attend the first four weeks because he was away at camp. Jack was regular in attendance, being absent only two days of the thirty days he participated in the program.

Jack appeared quite self-confident during the interview and was extremely well mannered. The subject stated that he had liked physical education at school and had enjoyed all of the activities presented in the program. Fishing and being out-of-doors were pastimes which Jack engaged in outside of school. The subject revealed that he was a very good skater and that he could ride a bicycle and frequently rode. When asked if he could swim, the subject said that he was an excellent swimmer and had been a lifeguard for two years. Jack disclosed that he enjoyed going to football games,and that he had been on the school basketball team, but had to quit because he was too old. According to the subject, he could jump rope, but could not stand on his head or do a cartwheel. Football was the game which Jack said was his favorite. The subject was very positive about all statements and attempted to convey an impression of superiority in physical activities.

The questionnaire was completed by the subject's mother who indicated that Jack was able to skate, swim and ride a bicycle. According to the mother, the subject only occasionally attended football, basketball, and baseball games. Rope skipping, ball games, skating, tumbling,

conditioning exercises, and dancing (which had been intended for girls) were activities in which the mother believed that Jack would enjoy taking part.

Initial Evaluation

On the initial test of the Lincoln-Oseretsky Motor Development Scale, the subject scored 59 points, which was far below any norms listed for fourteen-year-old males. (A score of 115 was at the 5th percentile for fourteen-year-old males.)

Both the classroom teacher and the investigator felt that the subject evidenced serious problems in overt psychosocial behavior in almost all of the areas listed on the Child Behavior Rating Scale. Very few positive aspects of the subject's behavior were found. The classroom teacher indicated that the subject was a fairly good listener in conversation and the investigator had never heard the subject swear or use foul language and believed that he did not have "stage fright" before a group.

Movement Program

The subject was generally very poorly coordinated. However, Jack was proficient in handling large balls and revealed that he spent much time practicing with his basketball. He had evidenced poor ability in balance and kinesthetic items included in the Lincoln-Oseretsky Motor Development Scale.

Jack was very cooperative at the beginning of the program, but he preferred to be alone during the movement sessions and became upset if one of the other boys even came to the door while he was involved in his individual activities. The subject usually took part in group activities, although he could not get along with his peers, was a bad sport, and frequently became angry and would quit before the end of an activity.

The content of the subject's individual movement program was quite limited. Jack did engage in some conditioning exercises and some tumbling, but mostly practiced jumping rope, which seemed almost an obsession with him.

At the beginning of the program, jack could not perform a squat thrust or a side straddle hop, although, according to the subject, both exercises had been used in the warm-up portion of his physical education classes. Jack learned the two exercises in addition to learning a backward roll, tripod, and a head stand. The subject also took part in other conditioning exercises which he preferred to perform to music.

Jumping rope to music was the activity in which Jack was the most interested and he frequently refused to take part in other activities. When he began the program, the subject could only jump about ten times while the investigator turned the rope. The subject would often spend twenty minutes or more jumping the rope and occasionally would continue to jump during the recess when the other subjects went

to the coffee shop. The subject once jumped 177 times without stopping and frequently would have to be reminded by the investigator that he should stop and rest. According to Jack, he had a rope at home which his sister turned for him to practice. The subject evidenced strange facial expressions and motions with his arms and hands while he jumped. Jack could jump for long periods of time but never became proficient at following another person into the rope and would have to wait until the rope turned several times before he could run into the rope. The subject had begun to show the same tenacity toward jumping an individual rope and had learned to jump about eight times by the end of the program.

The subject did not get along well with his peers. He was constantly telling unbelievable stories such as living in a large house which had columns across the front and a swimming pool in the back yard. Jack volunteered that his father was an alcoholic. Nevertheless, the subject frequently bragged about his father and how much money his father had. The subject once related that his father sometimes carried as much as six hundred dollars with him.

Although his only siblings were two sisters, the subject told the investigator that he had a brother who was a "hippy" and that the brother kept switch blade knives on his shoes and kicked people in the stomach who bothered him.

The subject also told the investigator that he had been appointed to a church committee and, as a committee member, inspected all bodies of the people who died in his

town. According to Jack, a report was made of how each person died and the subject gave an example of a cause of death as being shot in the head.

The subject was most cooperative and seemed to like the investigator throughout most of the program. However, there was a radical change in the subject's attitude toward the investigator and the movement program during the last two weeks of the program. When the investigator told Jack that he was going to be re-tested on the Lincoln-Oseretsky Motor Development Scale, the subject said that he would not be re-tested because the test made him sick. Many times thereafter Jack would push the investigator and grab her around the neck saying in a rather playful manner that he hated her. During the last two weeks, Jack frequently refused to come for the movement program, giving as a reason that the investigator's ugly face made him sick.

When it seemed that the investigator might not be able to re-test the subject on the Lincoln-Oseretsky Motor Development Scale, she asked the subject very specifically why he would not cooperate for the re-test. The subject said that he knew that he could not perform most of the items on the test. After much discussion, the subject finally consented to be re-tested.

The investigator talked to Jack's social worker about the subject's strange behavior. It seemed to the investigator that Jack's frustration over his poor motor development, as evidenced by the Lincoln-Oseretsky Scale, may have been

transferred to the investigator. The social worker believed that some of the hostility may also have been the result of Jack's resentment of his mother and that the subject was physically abusing the investigator because he might have wished to attack his mother but was unable to do so.

Final Evaluation

The subject scored 86 points on the re-test of the Lincolm-Oseretsky Motor Development Scale, which was in improvement of 27 points from the first testing, but still fell below any norms listed for fourteen-year-old males.

Both the classroom teacher and the investigator found the overt psycho-social behavior of the subject to be essentially the same at the close of the program. The subject's attitude toward the investigator and the program deteriorated greatly during the final two weeks.

Because the psychiatrist suspected brain damage and the coordination of the subject was reported to be extremely poor during the movement program, a neurological examination was scheduled for the subject in the fall.

It was concluded that the subject's overt psycho-social behavior remained essentially the same. The subject was able to learn certain gross motor skills and his motor development, as measured by the Lincoln-Oseretsky Motor Development Scale, improved.

CASE K

Background Information

Karl, a twelve-year-old boy, had one older half-brother by his mother's former marriage and a younger brother and sister by the present union. The subject's development was described as normal until, at the age of two, Karl began to have nightmares during the day. As a young child, the subject was hyperactive and experienced enuresis which he never overcame.

The subject reportedly did average work his first three years in school, but got progressively worse after that time. The guidance counselor reported that Karl had two very rejecting teachers during his early school years.

The subject did not get along well with his peers, and his brother who was only two years younger, seemed to be a constant source of conflict. The brother reportedly was more successful in most endeavors than was Karl. The father, who admitted that athletic achievement was important to him, stated that if Karl was not athletically inclined that he would not force his son to participate. It seemed that the subject was aware of the fact that his father was more approving of the younger brother who reportedly possessed potential for athletic achievement.

At the time of referral, the subject made mostly D's and F's in school. The poor grades seemed to upset the subject who reportedly daydreamed, was inattentive, and bit his

finger nails during class. Karl had been retained one year, but there were no plans to retain the subject further because he would then be in the same grade as his brother.

The mother brought her son to the Mental Health Center five months before this study began because of his poor achievement in school and his disrespect for her. Although the subject was well behaved while away from home, Karl often insisted that his mother cater to him by fulfilling requests such as bringing him a glass of water or picking out his clothes in the mornings. If his mother did not perform the tasks he had requested, Karl would have temper tantrums and call his mother vile names. On many occasions the subject would say that he wished he could die or that he had never been born.

The psychological evaluation revealed no evidence of organic impairment of functioning. Intellectual ability was at least in the bright normal range, with some suggestions of even higher capacity. A full scale I.Q. score of 107 was obtained.

The subject came willingly for his psychiatric evaluation having frequently stated that he believed that something was wrong with him. Although the family seemed quite stable, it was discovered that Karl was frequently reproached for such trivial actions as putting too much sugar on his cereal. The diagnosis was childhood adjustment reaction characterized by rather marked feelings of uncertainty. Most of the uncertainty seemed to center around what the subject should

do to win the approval of his parents or whether or not he was able to live up to their expectations. The psychiatrist recommended that the parents capitalize on Karl's strong points, which were reportedly swimming and playing a guitar, and minimize his short comings. The subject was referred to the Day Hospital for Children on a three-day-a-week basis.

Information From Interview and Questionnaire

When interviewed by the investigator, the subject stated that he sometimes liked physical education at his school, and that baseball, basketball and football were his favorite activities. Karl enjoyed watching television, playing with his dog, and riding a bicycle when not in school. According to the subject, he could skate, ride a bicycle, swim, and jump rope. Only occasionally did Karl attend ball games of any type even though football was named as his favorite game. The subject revealed that he could not stand on his head or perform a cartwheel, but he enjoyed trying stunts.

Karl's mother completed the questionnaire and substantiated all of her son's answers given during the interview. Tumbling and conditioning exercises were the activities in which the mother believed Karl might be interested.

Initial Evaluation

The subject was quiet and extremely cooperative during the initial testing with the Lincoln-Oseretsky Scale. Karl scored 98 points on the test, which lies between the 10th

and 16th percentiles for twelve-year-old males.

According to the classroom teacher, the only serious problem in overt psycho-social behavior observed was the subject's preference to be alone, while the investigator noted that the subject had little self confidence and often tended to have "stage fright" before a group.

Movement Program

Karl was regular in his attendance, being absent only one out of thirty sessions he was scheduled to attend. The subject was extremely quiet and appeared ill at ease at the beginning of the summer program, but he was always cooperative and engaged in many activities. Karl seemed to enjoy tumbling more than any of the other activities and he learned to perform a backward roll, cartwheel, tripod, kip up, head stand, and a head spring off of a rolled mat.

Karl was also proficient in jumping the rope that the investigator turned for him and was one of the few subjects who enjoyed jumping an individual rope. The subject was very proud of his ability to cross his arms while jumping and to jump while turning the rope backward. Karl could also jump double rope.

The subject liked to take part in conditioning exercises and recreational games. Karl played ping-pong rather well and seemed to enjoy shuffleboard. Games such as dodgeball and jump rope played with other subjects and the staff members frequently delighted Karl.

The subject appeared adequate in ball handling and striking activities. It was while he hit tennis balls or bounced a large rubber ball against the wall that the subject would relax and verbalize some of his feelings. In one such session, the subject began to talk about his experiences with the elementary football team. Karl revealed that he went out for football but hated the coach because, "he always picked the good ones to play." According to the subject, the other boys thought that he was "goofed up" because he never got to play.

During the summer, Karl got along fairly well with his peers, though on several occasions he engaged in altercations. The subject was periodically a poor sport and would quit when he got mad, but was not obnoxious in his manner. Karl perhaps showed more elation over his successes than any of the older subjects. The subject said that he liked the school at the Day Hospital for Children more than public school and frequently inquired as to why he did not have individual psychotherapy sessions as did many of the other children.

The subject made quite a bit of progress in his school work and seemed to form an attachment to his male teacher. By the end of the summer, Karl smiled quite often, seemed relaxed, and even took part in some frivolous pranks.

Final Evaluation

The subject appeared to be quite relaxed during the re-test of the Lincoln-Oseretsky Motor Development Scale. Karl's score of 126 represented a 28-point improvement over the initial testing and lay between the 71st and 80th percentiles for twelve-year-old males.

Both the classroom teacher and the investigator believed there had been considerable improvement in the subject's overt psycho-social behavior and could not find any serious problems in Karl's behavior at the end of the program.

There had never been any plans for re-evaluation by a psychiatrist because of the probable transient nature of the problem. Karl's male teacher, who was very close to the subject, concluded that the subject was the best adjusted child in the summer program. According to the teacher, Karl had evidenced concrete improvement in his school work and the teacher believed that there also had been an improvement in certain gross motor skills. (The subject often requested that his teacher be invited to observe his successful feats.) The teacher believed that there had been an improvement in Karl's self image which might continue if the parents did not push Karl to excel in athletics. At the conclusion of the summer program, there were no plans for further treatment of the subject.

The investigator concluded that the subject improved in: (1) overt psycho-social behavior; (2) certain gross

motor skills; and (3) motor development, as measured by the Lincoln-Oseretsky Motor Development Scale. The close relationship of the teen-age subject with his male teacher seemed to help neutralize any limiting factors brought about by having a female instructor for the individual movement program.

CASE L

Background Information

Laura, a thirteen-year-old female, had been born when her mother was eighteen years old. The subject's subsequent development and medical history were described as normal. Laura lived the early part of her life with her mother, father, and one younger sister in a rural area.

Two years before this study began, Laura's father died following a rather lengthy illness for which he had been hospitalized in another town. Because the mother stayed with their father during his illness, the children were separated from both parents for several months.

Following the death, the family moved to the city in which this study was made. Though the family existed only on social security allotments, which were reportedly minimal, the subject began school in a rather socially elite junior high school.

Laura, who was rather large for her age, remained in the seventh grade for two years and made all F's in academic subjects while making A's in conduct. Although Laura had

never been described as a particularly good student, she had never experienced the extreme learning problems that she evidenced in the new environment.

The subject was quite dissatisfied with school and frequently called her mother to come and get her at school. According to Laura's classmates, Laura "sat like a bump on a log" during school and refused to go anywhere with her peers. On occasions when the subject made plans to attend school functions with friends, she always changed her mind when the friends arrived at her house.

Laura was referred to the Mental Health Center two months before this study began by the special education department which had evaluated the subject because of her poor academic record. The mother indicated that she did not get along well with her older daughter, that Laura had never accepted her father's death, was withdrawn, and jealous of her younger sister.

The thirty-one-year-old mother was unemployed at the time of this study and was planning to remarry. The prospective husband, who had parked his trailer house by the side of the family's house, was the former husband of Laura's father's sister. The man had several children in his custody and Laura seemed to be in constant conflict with both the man and his children.

Frequently when the mother lost patience with her older daughter, she would whip her with a belt. The mother admittedly got along better with the younger sister, who,

according to the mother, invited closeness while Laura was distant. The mother and Laura's younger sister shared a bedroom while Laura stayed in another bedroom alone.

At the time of referral, the subject frequently refused to go to school. The subject slept late, then busied herself with cooking, sewing, and other household chores. Laura frequently was openly hostile and once even threw a dinner plate filled with food across the room. On many occasions, Laura would say that she wished that her mother would have died instead of her father.

The psychological evaluation revealed that Laura had an I.Q. of 101. According to performance tests, the subject read at a sixth grade eighth month level, spelled at a fifth grade seventh month level and was only at a fourth grade second month level in arithmetic.

The psychiatrist described Laura as a rather large, plain looking, obese thirteen-year-old girl who appeared to be sullen and angry. The diagnosis was adjustment reaction of adolescence, which seemed to be related to her father's death and the loss of her mother's attentions to a man. The psychiatrist recommended that the mother not hit Laura or do anything to promote hostility which already existed and that the mother not continue to share a bedroom with the subject's younger sister. In addition, Laura was referred to the Day Hospital for Children one day each week.

Information From Interview and Questionnaire

The subject came with the investigator for the interview because she was instructed to do so and appeared bored and unenthusiastic. When asked if she had liked physical education, Laura stated that she hated it and intensely disliked the teacher who nagged her all of the time. The subject indicated that she could swim, skate, ride a bicycle, and jump rope. Swimming and skating were activities which the subject enjoyed, but she did not like to jump rope and no longer rode her bicycle. Laura disclosed that she could not stand on her head or do a cartwheel, but liked gymnastics "so-so." The subject disclosed that she enjoyed attending ball games, especially football games. Although the subject had never taken dancing or twirling lessons, she indicated that she would like to learn both activities. Laura was openly hostile when discussing physical education at school, but showed some interest in gymnastics, dance and twirling.

Rather than returning the questionnaire to the receptionist as the other parents had done, the subject's mother personally returned the questionnaire to the investigator four weeks after the study began. According to the mother, Laura was very interested in learning to dance and twirl and practiced at home. The mother felt that the activities Laura took part in during the movement program were responsible for Laura's continued attendance at the Day Hospital for Children.

The questionnaire, completed by the mother, confirmed

all statements which Laura made during the interview. Laura's mother indicated that Laura had deeply disliked physical education in the public school and wrote on the questionnaire that her daughter hardly ever dressed out, but seemed interested in the physical education activities at the Mental Health Center. According to the mother, Laura had never taken twirling or dancing lessons, but dancing, twirling, and tumbling were activities in which the mother believed that her daughter might be interested.

Initial Evaluation

On the initial testing of the Lincoln-Oseretsky Motor Development Scale, the subject scored 111 points, which falls between the 14th and 21st percentiles for thirteen-year-old females.

Both the classroom teacher and investigator found that the subject exhibited the following serious problems in overt psycho-social behavior: (1) prefers to be alone; (2) seems unhappy or depressed; (3) personal values often not accepted by others; and (4) is hostile toward others.

According to the teacher who observed that Laura was sullen, withdrawn and resisted any attempts to be drawn into activities, further problems included: (1) appears to feel unwanted or disliked; (2) seems to have little self confidence; (3) is slovenly and unkempt in appearance; (4) has trouble keeping friends; (6) is not very popular with girls own age; (7) tends to have "stage fright" before a group;

and (8) lacks status and feels insecure with friends.

The investigator noted other serious problems in the behavior of the subject which were: (1) appears to feel unwanted or disliked; (2) is not very tactful with others; (3) is hostile towards others; (4) does not carry on a pleasant conversation; and (5) tends to be very selfish and self-centered.

Movement Program

Laura was referred to the Day Hospital for Children on a one-day-a-week basis, with an option of attending two days each week. For the first three weeks, the subject attended only one day a week, but during the fourth week began coming twice a week.

At the beginning of the program, the subject appeared extremely hostile and disinterested in most of the activities that the staff members planned for the adolescent girls. Laura's attitude softened slightly when she was alone with the investigator. When asked if she preferred to be alone or with other girls while engaging in the movement program, the subject revealed that she preferred to have at least one other girl with her.

The only other adolescent girl who was regular in attendance came with Laura for the movement program and also elected to attend the program two days each week. The two girls became very good friends, as did their mothers who were in the same adult therapy group. The subject and her friend

rode to and from the Mental Health Center together.

From the very beginning of the program, the investigator suggested that it would be easier for the girls to move if they would change into shorts or slacks as did the investigator. The topic of changing clothes was never dwelled upon because dressing out had been a point of consternation in the subject's physical education program in public school. It was not until the eighth week that the subject voluntarily brought appropriate clothes for vigorous activity.

The subject's primary interest at the beginning of the program was twirling and almost the entire thirty minutes each session was spent in the activity. By the end of the program, the subject was proficient in the following basic twirls: (1) salute; (2) wrist twirl; (3) horizontal; (4) figure eight; (5) two hand spin; (6) back passes; (7) leg passes; (8) horizontal toes; (9) thumb roll toss; (10) four finger twirl; (11) two finger twirl; and (12) time tosses. In addition, the subject learned to march to music and learned the cha-cha and tango step. Laura was extremely cooperative during the movement program, appeared quite interested, and in most activities exhibited an average amount of grace and rhythmical ability.

During the eighth week when the girls brought appropriate clothes, the subject took part in modern dance exercises. By the last few sessions, the subject had begun to work on tumbling skills. Although Laura was rather heavy,

she was quite flexible. The subject learned a backbend; front limber, without coming to a standing position; and was beginning to learn a kip up.

It was not until the seventh week that the investigator observed the subject smiling. Moreover Laura even laughed during the final week of the program.

Final Evaluation

On the re-test of the Lincoln-Oseretsky Motor Development Scale the subject scored 128 points which lies between the 42nd and 52nd percentiles for thirteen-year-old females. The subject improved 17 points from the initial testing.

According to the classroom teacher, the subject evidenced substantial improvement in: (1) prefers to be alone; (2) seems unhappy or depressed; (3) appears to feel unwanted or disliked; (4) seems to have little self confidence; (5) personal values not accepted by others; (6) is slovenly and unkempt in appearance; (7) is hostile toward others.

The classroom teacher believed that Laura still evidenced serious problems in: (1) has trouble making friends; (2) has trouble keeping friends; (3) is not very popular with girls own age; (4) lacks status and feels insecure with friends; and (5) tends to have "stage fright" before a group.

The investigator believed that there had been a tremendous improvement in the subject's overt behavior while in the movement program and found no serious problems in

overt behavior at the end of the program, although the subject remained reserved.

There was no psychiatric re-evaluation of the subject. In a concluding statement, the social worker who handled the case indicated that Laura and her mother were getting along much better and that the mother was very pleased with Laura's progress. No further treatment was planned for the subject or her mother.

The investigator concluded that the subject improved in: (1) certain gross motor skills; (2) motor development, as measured by the Lincoln-Oseretsky Motor Development Scale; and (3) overt psycho-social behavior.

CHAPTER V

SUMMARY, FINDINGS, AND CONCLUSIONS

SUMMARY

This research was undertaken to determine the effects of individualized movement programs upon emotionally disturbed children.

The specific purposes of this study were:

1. To determine whether emotionally disturbed children between the ages of seven and fifteen who participated in individualized movement programs would evidence:
   A. Improvement in motor development, as measured by the Lincoln-Oseretsky Motor Development Scale.
   B. Improvement in certain gross motor skills.
   C. Improvement in overt psycho-social behavior.
2. To determine whether individualized movement programs for emotionally disturbed children between the ages of seven and fifteen would be feasible in a clinical setting.

The method of research selected for the study was the case study technique. Twelve subjects between the ages of seven and fifteen years of age who were enrolled in the 1968 summer session of the Day Hospital for Children at the Baton

Rouge Mental Health Center, Baton Rouge, Louisiana, were studied.

Individualized movement programs were developed for each subject and subjects were taught alone or in small groups.

Case studies were written to describe each subject's experiences in the movement programs. Sources of data were:

1. Background information from the subjects' files which contained family background, developmental history, psychological data, psychiatric evaluations and other pertinent information.

2. Interviews with subjects which yielded general impressions of the subjects and statements by the subjects concerning their interests and abilities.

3. Questionnaires completed by parents which revealed the parents' conceptions of their children's abilities and interests.

4. Assessment of motor development at the beginning and end of the program using the Lincoln-Oseretsky Motor Development Scale.

5. Assessment of overt psycho-social behavior at the beginning and end of the program by the teacher and investigator using the Child Behavior Rating Scale.

6. Daily observations during the movement programs which included observations of overt psycho-social behavior and gross motor skills.

7. Re-evaluation of subjects by the investigator and teachers and by a psychiatrist or social worker.

FINDINGS

The emotionally disturbed children who participated in the program were found to evidence the following status changes in motor development, as measured by the Lincoln-Oseretsky; certain gross motor skills; and overt psycho-

social behavior.

Motor Development

Initial testing.--Of the twelve subjects who were to have been initially tested for motor development by means of the Lincoln-Oseretsky Motor Development Scale:

1. Four of the subjects refused to cooperate for the testing.

2. One subject scored in the general range of average to above average in percentile norms.

3. Five of the subjects were below average in the percentile norms.

4. Two subjects scored below any norms listed for the age level.

Final testing.--Of the twelve subjects who were to have been re-tested for motor development by means of the Lincoln-Oseretsky Motor Development Scale:

1. Two subjects were unable to be re-tested because of circumstances beyond the control of the investigator or the subjects.

2. Four of the subjects scored in a general area of average to above average in percentile norms.

3. Two of the subjects scored below average in the percentile norms.

4. Four of the subjects scored below any listed norms for the age level.

Improvement.--Of the seven subjects who were tested and re-tested:

1. Five subjects improved their scores.

2. Two subjects' scores declined.

Gross Motor Skills

All subjects were able to improve, to differing degrees, in certain gross motor skills. The one girl in this study was the only subject who developed skill in the activities classified as rhythmical. Eleven of the twelve subjects evidenced improvement in the activities which were classified under stunts and tumbling. The broad category of basic skills was an area in which all of the male subjects experienced improvement. All but two of the male subjects improved in conditioning exercises and in simple games.

Overt Psycho-Social Behavior

Movement program.--The overt psycho-social behavior of the twelve subjects while participating in the movement program was observed as showing:

1. Improvement by eight subjects, including four young males, three adolescent males and one adolescent female.

2. Little change by three subjects, including two young males and one adolescent male.

3. A worsening evidenced by one subject who was a young male.

Classroom.--The overt psycho-social behavior of the same twelve subjects while in the classroom and informal instruction was observed as evidencing:

1. Improvement by six subjects including three young males, two adolescent males and one adolescent girl who had all evidenced improvement in the movement program.

2. Little change in two subjects including one young male and one adolescent male who both had

evidenced little change during the movement program.

3. A deterioration evidenced by four subjects including three young males and one adolescent male. Of these four subjects, one young male and one adolescent male had evidenced improvement in the movement program, one young male had remained the same and one young male had evidenced a worsening in behavior while in the movement program.

Feasibility of Individualized Movement Programs

The investigator found that individualized movement programs for emotionally disturbed children were feasible in a clinical setting. With proper equipment, movement programs conducted by a physical educator were found to be suitable to the limited space of a clinic.

DISCUSSIONS OF FINDINGS

Motor Development

Many factors were involved in the testing of the subjects in motor development. Scoring of the Lincoln-Oseretsky Motor Development Scale which was used to measure motor development was to some extent subjective with the investigator being required to make judgments such as determining if a subject was making gross movements while balancing or making unnatural facial movements while performing an activity. The norms available for the scale were not refined and gave only approximate standings. Provisions were not made for extremely low scores and four of the twelve subjects scored below any listed norms.

Another factor to be considered in interpretation of

the scores was the possibility of minimal brain damage in the subjects. Some of them were suspected to have minimal brain damage and exhibited extremely poor performances on the kinesthetic and balance items in the test. The ability, or lack of ability to concentrate, apparent limited intellectual capacity, and consistency of effort also seemed to affect the scores. In addition, motivation played an important part in the testing.

Many of the younger subjects had stated that they would not be re-tested. Consequently, all of the younger subjects were awarded candy and had stars placed on a chart as they completed items of the test. The result seemed to be a higher level of motivation for the re-test than was present in the initial testing. Also, the subjects and the investigator had established rapport by the time of the re-test which had not been present in the initial testing.

Of the five subjects who improved their motor development scores, two were young males, two were adolescent males and one was an adolescent female. Two of the three subjects who evidenced improvement in motor development were inconsistent and sometimes uncooperative during the movement program.

Gross Motor Skills

There seemed to be no consistent relationship between scores on the Lincoln-Oseretsky Motor Development Scale and the ability of the subjects to learn certain gross motor skills.

The learning of gross motor skills by the emotionally disturbed children in this study was affected by many conditions. Some children had had little opportunity to play with other children or even to observe other children playing. A few of the children had been restricted from usual activities because of a fear that they might hurt themselves or others. The poor coordination evidenced by many of the subjects precipitated a need for careful guidance in the learning experiences to avoid frustration.

The literature affirmed that many emotionally disturbed children often lack a clear concept of themselves and their bodies. Some subjects seemed to be unable to properly interpret kinesthetic cues. Analytical ability, the ability to concentrate on the skill and ability to take directions were also important in influencing the learning of skills.

It was found in this study that many, but not all, of the subjects were poorly coordinated. The possibility of undetected minimal brain damage in some of the subjects may have also had an effort on the coordination of some subjects in this study and perhaps may be a consideration in other studies of emotionally disturbed children involving physical activity. A few of the subjects were probably within what could be considered an average range, with one of the subjects being extremely well coordinated.

Nothing was found in the literature reviewed which indicated the possibility of physical skills being used as a means of motivating special interests for those emotionally

disturbed children who were average or exceptional in ability to learn skills in certain areas. In fact, physical education of emotionally disturbed children was almost exclusively mentioned in terms of a remedial program. The investigator found these special interests in activities to be an area of extreme importance for children who could truly excel for the first time in their lives.

Overt Psycho-Social Behavior

Many uncontrollable variables were evident in the rating of the overt psycho-social behavior of the subjects. Some of the subjects were rather fearful and restrained during the first two weeks of the program when they were initially rated, and it was only after a few weeks that they felt secure enough to exhibit their usual patterns of behavior. The investigator and teachers felt that the rating at the end of ten weeks was probably a more reliable rating because of the longer length of contact with the subjects. However, some objectivity was probably lost after being in close contact with the subjects over a period of time.

The Child Behavior Rating Scale called for subjective ratings by the investigator and teachers. Certain limitations are inherent in subjective ratings, particularly in the evaluation of personality-related factors.

Although an improvement in behavior may seem advantageous, previously internalized hostilities which become externalized, as evidenced by a worsening of overt behavior,

may be desirable in some emotionally disturbed children.

It has been emphasized in some of the articles written by physical educators that a basic value of gross activity for emotionally disturbed children is in releasing built-up energy and hostility, while some authorities writing in the field of education for emotionally disturbed children have stated the belief that gross motor activity can serve no useful purposes and only excites children and makes them more hyperactive. It was found in this study that at times when some of the children were inadvertently allowed in the halls while relatively unsupervised that they often began to run and engage in aimless gross movements. This type of nondirected activity did not seem to serve as a release of energy, but did in fact contribute to their hyperactivity. On the other hand, goal-centered activities engaged in during the individualized movement programs did not tend to produce a heightened state of hyperactivity even though some of the subjects became excited and elated after obtaining success in physical skills. Some subjects appeared to be able to release hostility through throwing and striking patterns.

That participation in group activities facilitates group adjustment is an often stated hypothesis. In this study, it was found that group activities for the younger subjects were never satisfactory, and only occasionally did activity with two younger subjects prove to be profitable. Some of the same children who were unable or unwilling to

participate in games of physical activity were often observed playing quiet games in small groups under close direction.

The competitive situation that was present in even simple games of physical activities seemed to present too much of a challenge to the ego of the children, particularly those with severe deficits in basic skills. There was some slight improvement in activities involving two subjects as each subject had the opportunity to experience success in learning skills on an individual basis and had apparently developed some better self concept because of the skill.

The adolescents seemed to have developed a little more tolerance for competitive games, or had in some manner learned to cope with the situations enough to make some attempts toward playing games, although these games never went smoothly.

The individualized movement program as a basic way of teaching made possible individualized help in areas of weakness. Weaknesses in areas of motor skills seemed to greatly affect the subject's attitude toward games. It seemed that individualized aid may be the basic need or first step before group activity can be profitable. Some degree of favorable self image or self adjustment appeared to be necessary before group adjustment could be facilitated.

The assertion that emotional problems can arise from the cultural demands placed upon boys to be masculine and possess adequate physical skills was evidenced in all four of the adolescent subjects. This was not detected in the

younger boys. Two of the four adolescent boys evidenced extremely poor physical skills. The first of these two subjects had previously tried to commit suicide. His lack of physical skill was reportedly one of the reasons which prompted the attempt. The second subject found it necessary to invent fantasies regarding his excellence in physical skills.

The other two adolescent subjects probably fell somewhere within a wide range of what could be considered normal in physical skills. One of these subjects felt that he was not living up to the standard of athletic excellence set by his brother, and what apparently was desired by the father. The other subject related to his psychiatrist that he was concerned because he was small for his age, thin, and weak.

Feasibility of Individualized Movement Programs

The investigator found that individualized movement programs for emotionally disturbed children between the ages of seven and fifteen were feasible in a clinical setting despite the limitations for such programs which were listed in Chapter I. Three staff specialists at the Baton Rouge Mental Health Center concurred with the investigator that individualized movement programs were feasible. Furthermore, the staff specialists believed that individualized movement programs were desirable and even necessary for the welfare of emotionally disturbed children. Complete statements of the staff specialists appear in Appendix F.

CONCLUSIONS

The investigator drew the following conclusions from the study:

1. Objective tests of motor development, such as the Lincoln-Oseretsky Motor Development Scale, are difficult to administer to emotionally disturbed children and yield questionable results because of many factors involved in testing such children.

2. It is possible to bring about substantial improvement in physical skills of emotionally disturbed children through a planned movement program.

3. Planned activities seem to bring about a release of energy while aimless activity appears to facilitate hyperactivity.

4. Achievement in motor skills, in some cases, appears to bring about a degree of self-confidence and facilitation of group adjustment during physical activities.

5. Individualized programs seem necessary before group programs in physical activity for emotionally disturbed children can be effective.

6. Regardless of the limitations in space and facilities as in a hospital or clinical setting, it is feasible to offer an individualized movement program for emotionally disturbed children.

RECOMMENDATIONS FOR FURTHER STUDY

The investigator makes the following recommendations for further study:

1. A study of children who exhibit different degrees of severity of emotional disturbance and the implications for programs of physical activity.
    A. Mildly disturbed children attending public schools.
    B. Moderately disturbed children attending special schools, but living at home.
    C. Severely disturbed children who are institutionalized.
2. A study of emotionally disturbed children who exhibit different forms of disturbance and the implications for individualized programs of physical activity in accordance with the following forms of behavior:
    A. Aggressive-impulsive
    B. Regressive reaction formation
    C. Anxiety phobic
    D. Schizoid-schizophrenic
3. A comparison of the coordination and physical skills of emotionally disturbed boys and emotionally disturbed girls.

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APPENDIX

APPENDIX A

INTERVIEW WITH SUBJECT

Name _____

Age _____

1. Have you ever had physical education at school?

   Did you like it?

   What did you like (not like) about it?

2. What do you do in the afternoons after school?

3. Can you skate?

4. Can you ride a bicycle?

5. Can you swim?

6. Do you like to go to ball games?

7. Do you like to jump rope?

8. Can you stand on your head? Can you do a cartwheel?

9. Girls: Have you ever taken dancing lessons?

   Have you ever taken baton twirling lessons?

10. What is your favorite game?

APPENDIX B

QUESTIONNAIRE FOR PARENTS OF SUBJECTS

In order to plan a more interesting and meaningful physical education program for your child, it would be helpful if you would complete this questionnaire concerning the interests and abilities of your child.

Name of child _____

Questionnaire completed by mother__ father__ guardian__

1. Can your child skate? yes__ no__

   If so, how often does your child skate?

   frequently__ occasionally__ never__

   At approximately what age did your child learn? ___

2. Can your child ride a bicycle? yes__ no__

   If so, how often does your child ride a bicycle?

   frequently___ occasionally___ never___

   At approximately what age did your child learn?___

3. Can your child swim? yes__ no__

   If so, how often does your child swim?

   frequently___ occasionally___ never___

   At approximately what age did your child learn?___

4. Does your child attend football games? yes__ no__

   If so, how often? frequently__ occasionally__ never__

5. Does your child attend basketball games? yes__ no__

   If so, how often? frequently__ occasionally__ never__

6. Does your child attend baseball games? yes__ no__

   If so, how often? frequently__ occasionally__ never__

7. What does your child enjoy doing outside of school?

   play out of doors ___ watch TV ___

   play indoors ___ other ___

8. Do you (parents) take part in any activities? yes___

   no___

   bowl___ swim___ golf___ tennis___ other_____

9. What has been the attitude of your child toward any type of physical education program?

   liked___ disliked___ no opinion___

10. Has your childeever taken dancing lessons? yes__ no__

    If so, at what age?__ how many years?___

11. Has your child ever taken baton twirling lessons?

    yes__ no__ If so, at what age?__ how many years?__

12. In what activities do you think your child would be interested?

    ___rope skipping

    ___ball games

    ___skating

    ___tumbling

    ___conditioning exercises

    ___dancing

    ___twirling

    ___none

    Please list others:_____

APPENDIX C

DAILY OBSERVATION SHEET

Name_____

Date_____

time_____ to _____ 227

Skills to be presented	Time spent	Repetitions	Success	Quality 1	2	3	4	5

	yes 1	2	3	4	no 5
1. Not cooperative					
2. No initiative					
3. Interest wanes					
4. Not enthusiastic					
5. Seemed unhappy					
6. No self confidence					
7. Mind wanders					
8. Giggles when nothing funny					
9. Bites nails or sucks thumb					
10. Hyperactive					
11. Trouble controlling temper					
12. Show off					
13. Self conscious					
14. Words out of context					

APPENDIX D

MOVEMENT PROGRAM ACTIVITIES

I. Conditioning Exercises

- A. Modified push up
- B. Push up
- C. Curl down
- D. Sit up
- E. Side straddle hop
- F. Squat thrust
- G. Touching toes

II. Basic Skills

- A. Basic locomotor skills (at different speeds, in different directions, with and without musical accompaniment)
  1. walk
  2. run
  3. hop
  4. leap
  5. jump
  6. skip
  7. slide
- B. Ball handling and striking patterns
  1. bean bags
     a. targets

b. throw and catch

2. fleece balls

a. targets

b. throw and catch

c. hit with racket

3. rhythm balls

a. bounce

b. roll

c. targets

d. throw and catch

4. footballs (plastic)

a. throw and catch

b. throw through hoop

c. kick

5. striking patterns

a. batting tee

b. tap-n-hit

III. Rhythms

A. Singing games performed to recorded music

B. Rhythm instruments

C. Basic dance steps

D. Modern dance

E. Twirling

F. Marching

IV. Stunts and Tumbling

A. Stunts

1. balance beams

2. balance blocks
3. tilt board
4. knee scale
5. mule kick
6. chicken walk
7. seal walk
8. inch worm
9. coffee grinder
10. turk stand
11. thread the needle
12. cork screw

B. Tumbling

1. log roll
2. forward roll
3. backward roll
4. cartwheel
5. tripod
6. head stand against wall
7. head stand
8. hand stand against wall
9. kip up
10. head spring
11. backbend
12. front limber

V. Simple Games and Activities

A. Dodgeball

B. Skip the fly (jump rope)

C. Simplified ping-pong

D. Shuffle board

E. Races

F. Volleyball

G. Softball

H. Toss bean bags in the box

I. Toss balls at target

J. Scoop ball

K. Skate

L. Hula hoop

M. Rope skipping

   1. individual ropes

   2. long ropes

   3. step patterns

   4. rhythmical jumping

APPENDIX E

EQUIPMENT

The following equipment was available for use in the study:

I. One set of Flying Fleece balls
   - A. One softball size
   - B. One plastic covered softball size
   - C. One baseball size
   - D. Three badminton size

II. One set of Safe-T-Play products
   - A. Three plastic softballs
   - B. One intermediate football (plastic)
   - C. Two bounce and rhythm balls
   - D. One tap-n-hit
   - E. One bat tee, bat and ball set (plastic)
   - F. One scoop game

III. Custom-made equipment
   - A. One balance beam, 4" by 6'
   - B. One balance beam, 2" by 6'
   - C. One tilt board
   - D. Eight wooden blocks 4-1/2" by 9" by 2"
   - E. Two wooden standards 6'

IV. Other equipment
   - A. Percussion instruments

1. bongo drum
2. tambourine
3. maracas

B. Roller skates with plastic wheels

C. Phonograph

D. Records

E. Bean bags

F. Jump ropes

G. All purpose net

H. Tumbling mats

I. Tennis balls and small tennis rackets

J. Colored chalk

K. Targets

L. Hula hoop

M. Ping-pong table and equipment

N. Shuffleboard disk and cues

O. Stop watch

APPENDIX F

STATEMENTS OF STAFF SPECIALISTS

Psychiatrist

The psychiatric consultant for the Day Hospital for Children made the following concluding statement:

> There are at least nineteen million mentally ill Americans. An increasingly large proportion of these are children under the age of 6--and the most crying explicit need in American psychiatry today is for programs, staff and facilities for the treatment of emotionally disturbed and malnourished children. This is relatively true (as well as in actuality) since there are far more resources for adults, who usually can find psychiatric treatment in some facility if they try (many don't).
>
> It is commonplace that severely disturbed children usually demonstrate gross impairments in all areas of human functioning--including perceptual motor coordination and the usual acquisition of athletic skills shown by more favored youngsters. Much of this is due to lack of opportunities and availability of resources. However, idiosyncratic and dynamic disturbances of body image, high anxiety, autistic withdrawal, and disturbances of communication also play a significant part.
>
> Dollard and Miller and others have hypothesized (and in some cases demonstrated) that whereas particular disturbances in functioning may initially have survival value (or represent a coping mechanism) for the frightened child, such disturbances often persist as "poor habits"--or as a generalized inhibition in the face of opportunities for new learning, even after a threat situation has passed.
>
> In terms of therapeusis, the disturbed, fixated, or regressed individual is often best helped by: (1) the identification of nuclear skills; (2) subsequent development of these; and (3) acquisition of new skills as a carry-over or "splay." I feel this holds

particularly for children wherein often more orthodox psychotherapeutic techniques are of little value and involve excessive inputs of effort and time in developing a relationship with the individual child and "reconstructing" his personality.

With the above consideration in mind, it has long beenaapparent to me, not only theoretically but from first-hand observation of both disturbed and supposedly "normal" children, that an individualized program of "physical education" in all its dimensions confers enormous benefits.

Such a program should include, then, development of: (1) diagnostic techniques for identifying nuclear skills already present; (2) individual program planning; and (3) program achievement in a supportive and encouraging atmosphere. In such a program even very slight improvement should, of course, be rewarded.

Since every human being is unique, the most important aspect of such a program should be individualization of diagnosis and treatment recommendations. It is conceivable that some emotionally disturbed children would benefit from competitive experience in a small group, while others (at least initially) would do better being worked with alone wherein competition is minimized.[1]

Social Worker

The social worker who was in charge of the Day Hospital for Children made the following concluding statement:

It is my opinion that emotionally disturbed children have many voids in their physical development. I have observed many children who are in treatment in our clinic who lack the basic skills that are required to run, hop, skip, throw and catch a ball, jump rope, skate, etc. Individuals who are trained to teach these children in physical education are essential to any program in special education. Much can be accomplished in the development of emotional maturity by accomplishments in some form of physical activity. Ego

---

[1]John L. Kuehn, Psychiatric Consultant for the Day Hospital for Children, Baton Rouge Mental Health Center, Assistant Professor of Psychiatry and Associate Professor of Psychology at Louisiana State University.

development is facilitated by gratification that comes from doing things which other children around them are doing.[2]

Psychologist

A psychology assistant at the Baton Rouge Mental Health Center made the following concluding statement:

> After watching some of the children early in the program and comparing their performance with films made at a later date, I concluded that there appeared to be a tremendous improvement in coordination and ability. This would seem to be very important to the self concept these youngster had. Most of the emotionally disturbed children had a rather poor self image that was due in part to lack of ability, but also from a lack of opportunity to learn and practice skills. With the type of program that was conducted in the Day Hospital, the importance of competition was removed and the children were able to learn in a non-threatening environment. Upon learning skills which the children had previously thought to be impossible for them to learn, their self image was improved at least in one area. It seems possible that experiences of success and achievement might have the effect of "snowballing" to other areas of functioning as well.[3]

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[2]Wilma W. Holloway, Social Worker in Charge of the Day Hospital for Children, Baton Rouge Mental Health Center.

[3]Jerry Peterson, Psychology Assistant, Baton Rouge Mental Health Center.

VITA

The investigator, Betty Brown Haley, was born January 16, 1941 in Natchitoches, Louisiana, the daughter of Mr. and Mrs. Harry Alvin Brown.

She attended Northwestern Elementary School, East Natchitoches Elementary School, and Natchitoches High School. She graduated from Northwestern State College in 1963 with a major in physical education and a minor in library science.

After graduation from college, she lived for two years in Fayetteville, North Carolina, before moving to Baton Rouge, Louisiana in 1966. For one semester, she taught physical education at Clinton High School, Clinton, Louisiana. During the 1966-67 school year she taught physical education at Baker High School, Baker, Louisiana. In the summer of 1967 she received the degree of Master of Science in Education from Northwestern State College and in the fall of that same year became a full-time student at Louisiana State University.

The investigator is married to Phillip Ray Haley and has one child.

EXAMINATION AND THESIS REPORT

Candidate: Betty Brown Haley

Major Field: Physical Education

Title of Thesis: The Effects of Individualized Movement Programs Upon Emotionally Disturbed Children

Approved:

Helen E Faust
Major Professor and Chairman

R D Anderson
Dean of the Graduate School

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Date of Examination:

June 18, 1969